



Software Engineering Career Path

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Introduction

The Software Engineering Career Path at Tandem provides guidance to you as an individual team member as well as to your managers and mentors who support your career growth. But, no two individuals' careers unfold the same way, and we don't expect that to happen at Tandem. What is outlined below should be allowed a certain degree of flexibility and will be updated regularly.

At Tandem, we believe in supporting you at the pace that works best for you. Career growth is often associated with access to opportunity. Our goal is to find and create opportunities in areas you want to grow your skills. We believe in sponsoring people for stretch opportunities, but also keep the door open for you to find opportunities we haven't thought of before.

Each stage in the Career Ladder includes three components:

1. **Responsibilities & Impact** - the things you need to do and how they impact Tandem and our clients
2. **Technical Skills** - a measure of the engineering skills that you may have acquired in a particular stage
3. **Professional & Consulting Skills** - a measure of the professional and consulting skills you may have acquired in a particular stage

In general all of these should build on each other as you progress through the stages, each inheriting the points of the preceding stages.

A Note on Typical Prior Years of Experience

Each stage of the Career Path includes a "typical years of prior experience". This is just a guideline based on what we see in the industry. This is by no means a rule but is provided

to further help us benchmark ourselves and candidates as they come into the company. In terms of advancement at Tandem some people will enter a new title early as it relates to the benchmark, some later, depending on their progress in the four components of each position.

A Note on Salary Bands

We believe that transparency in salary bands promotes equality amongst our employees. And Tandem, as an employer, has an obligation to make opportunities for all of our team members as equitably as possible. But we also believe that salaries should not be fixed as individuals should be compensated based on their performance and impact to the organization. So, you will notice that the salary bands widen as you progress toward the later stages of the path. This allows for more senior team members to choose for themselves how they want to invest in Tandem, our culture, our public profile, and our clients and be compensated in kind.

Salary bands will be evaluated on a regular basis against the local market. What you see in this document is for the Chicago market as our largest co-located group. Other geographies will be proportional to local living costs. Our goal is to be competitive with market salaries but also to recognize the significant intangible benefits at Tandem, including: industry leading work/life balance, highly competitive medical benefits, a collaborative and people-focused culture, and a desire to seek meaningful and fulfilling work. Salary bands may be periodically adjusted for market and cost-of-living influences. The Career Path document will be updated as such from time-to-time.

Baseline Responsibilities & Impact

The following are the baseline responsibilities and attributes Tandem expects from all software engineers (Apprentice through Principal):

- Demonstrates Tandem's core values consistently
- Contributes to Tandem's culture in a positive way, fostering inclusion encouraging others, and collaborating as a team
- Thoughtfully provides feedback to their team members in performance reviews, retrospectives, and on an ad-hoc basis including positive recognition and identifying opportunities for growth
- Raises Tandem's profile in the community through:
 - Writing at least 2 blog posts each year
 - Participating in Tandem sponsored community events and meetups
 - Considering to submit proposals to speak at conferences
 - Considering to contribute to open source

- Engages in our hiring process by joining phone screens, code reviews, and interviews
- Works with the Tandem sales team when called upon to assist in discovery, scoping, and estimation of projects
- Provides support with Software Managed Services when necessary
- Positively represents the Tandem team in all interactions with the client, supporting our team and our work with integrity. As consultants, our clients view every interaction with an individual as an interaction with the team as a whole.

Software Engineering Titles

As you progress through our engineering levels, you will become more adept at navigating technical complexity and ambiguity. You will level up your mentorship and coaching skills and will widen your sphere of influence from your personal scope of work to the project team's scope of work to the organization's scope of work. As a general rule, you may be ready for promotion when you consistently exhibit 90% or more of the behaviors for your current level and 70% of the next level.

Apprentice Software Engineer

Our apprentices are eager and curious learners who are focused on building out broad technical and consulting skills. We don't expect our apprentices to have all the answers, but we do expect them to be quick with questions and to actively seek out support.

Typical Years of Prior Experience: 0-1

Standard Salary: \$60,000

Responsibilities & Impact

- Focuses on growing as an engineer, learning tools and processes that our team is using
- Learns from more experienced colleagues and actively seeks them out, pair programming as much as possible
- Develops their productivity skills by learning the tools of the trade and best practices in agile, TDD, etc
- Presents and discusses their work and progress with colleagues
- Works on scoped features with guidance from team or other engineers, contributing meaningfully to tasks

Technical Skills

- Has foundational knowledge of programming basics that would traditionally be expected of someone who completed an “immersion-style” bootcamp
- Proficiency in at least one programming language and one application framework (e.g. Ruby and RoR, Javascript and Express, or Swift and iOS)
- Understands the basic concepts of agile software development processes
- Works on up defined stories requiring local modifications or existing code components, such as adding a button with an action, and implement them from start to finish even though some refactoring may be necessary

Professional & Consulting Skills

- Collaborates with other software developers
- Breaks down basic features into a set of steps to implement (decomposition) even though the architecture may not be ideal
- Expresses an aptitude for pair programming, with some coaching and pairing assistance from other team members
- Contributes to meetings and asks questions in a group including while clients are present
- Provides feedback to peers through PRs or code reviews

Software Engineer I

Level 1 Software Engineers continue to develop their technical and professional expertise, including understanding enough to identify what they don’t know. Engineers at this level are still committed to building a broad portfolio of skills, increasing their mastery of current skills.

Typical Years of Prior Experience: 1-2

Salary Band: \$80,000 - \$95,000

Responsibilities & Impact

- Contributes to client projects in a net-positive way, more steps forward than backward
- Pairs with more experienced team members to continue building foundational technical skills
- Collaborates actively with team members from all disciplines, including design, product, and client engagement.
- Seeks feedback and gets work reviewed by colleagues to gain more advanced knowledge
- Guides any apprentices through the apprenticeship journey, leveraging their own early-career experience
- Seeks out and owns light interactions with clients (e.g. delivering updates in

- standup or Slack and gathering or documenting requirements)
- Completes work according to task prioritization

Technical Skills

- Works on low complexity features, such as those requiring new implementations of existing patterns or minor improvements to existing architecture in a single layer of the application, such as the UI or API or database. They can complete this work independently if necessary, with minimal rework
- Effectively debugs low complexity issues in the code using a systematic approach independently. Low complexity issues are those where it's clear what remediation steps are required from the acceptance criteria.
- Effectively debugs medium complexity issues in the code using a systematic approach, with some coaching and pairing assistance from other team members. Medium complexity issues are those where the remediation steps require more investigation, but do not require large refactors or multi-level system changes.
- Consistently delivers code with test coverage for some of the primary functionality, focusing on essential behavior, with some coaching and pairing assistance from other team members
- Delivers code with error handling for critical errors in integral parts of application functionality, with some coaching and pairing assistance from other team members
- Demonstrates proficiency in at least one language and framework with foundational knowledge of another as well (example: proficient with Ruby and Ruby on Rails and has foundational knowledge of JavaScript and React)
- Applies some of the best practices of their 2 main languages/frameworks and consistently delivers code that follows those best practices, with some coaching and pairing assistance from other team members
- Provides high-level documentation for their work most of the time, including PR descriptions, commit messages, README updates, or content in the project management tool, with some coaching and pairing assistance from other team members
- Communicates their opinions on technical matters and can explain the justifications behind their implementation decisions, even if they are founded in personal preference

Professional & Consulting Skills

- Communicates assumptions and asks clarifying questions about tasks up front to minimize the need for rework
- Asks questions to discover edge cases and identify product and/or technical concerns before implementation work starts on a feature, with some coaching and pairing assistance from other team members
- Asks questions about timeline or budget when talking about requested changes

with the team, with some coaching and pairing assistance from other team members

- Seeks out and acts on feedback from peers both on technical and professional/consulting topics
- Understands business requirements and translates them into data models at the logical level, if not the technical level, with some coaching and pairing assistance from other team members
- Produces realistic estimates for their individual scope of work at the task level, with some coaching and pairing assistance from other team members
- Understands trade-offs in decision making and seeks support in applying this type of thinking to their work, with some coaching and pairing assistance from other team members
- Navigates project management tools and writes user stories and other documentation, with some coaching and pairing assistance from other team members
- Contributes their technical and consulting opinions in client and internal meetings, with some coaching and pairing assistance from other team members

Software Engineer II

Level 2 Software Engineers are growing into more independent and autonomous team members. Engineers at this level organize their own work in a productive manner with little oversight from leads. Level 2 Engineers can join a new project and reliably follow established standards and processes. We hope that engineers at this level are aware of their team needs and offer support and expertise to other team members when they need it.

Typical Years of Prior Experience: 2-3

Salary Band: \$90,000 - \$105,000

Responsibilities & Impact

- Contributes to the work of their project team with little rework necessary
- Owns small areas of the project and/or code-base such as taking responsibility to be a subject matter expert for a part of the domain
- Transfers programming skills (command over languages, frameworks, libraries, etc) between technologies with proficiency
- Updates and coordinates their work with clients, raising issues and pre-empting problems
- Actively participates in Tandem's interview process

Technical Skills

- Happily contributes on all sides of the stack, frontend and backend
- Works on medium complexity features, such as those requiring new implementation patterns in a single layer of the application, such as the UI or API or database. They can complete this work independently if necessary, with minimal rework
- Works on high complexity features, such as those that integrate multiple systems or call out to a third-party, with some coaching and pairing assistance from other team members
- Effectively debugs medium complexity issues in the code using a systematic approach. Medium complexity issues are those where the remediation steps require more investigation, but do not require large refactors or multi-level system changes.
- Executes low complexity refactors, such as those that touch multiple components within a single layer of an application
- Models data for low complexity features, such as those that require foreign key relationships but do not require polymorphism or join tables
- Consistently delivers code with test coverage for some of the primary functionality, focusing on essential behavior. Primary functionality is that which is needed to meet the core requirements, such as data parsing logic. Nonprimary functionality is non-essential to the core requirements, such as a helper function for displaying date strings.
- Delivers code with error handling for critical errors in integral parts of application functionality
- Demonstrates proficiency in multiple languages and frameworks. Transfers programming skills between languages and frameworks with similar syntax
- Applies best practices of their proficient languages and frameworks and consistently delivers code that follows those best practices, with some coaching and pairing assistance from other team members
- Coaches less experienced team members on the basics of their proficient languages and frameworks
- Provides high-level documentation for their work most of the time, including PR descriptions, commit messages, README updates, or content in the project management tool
- Communicates their opinions on technical matters and can explain the justifications behind their implementation decisions, even if the basis for the opinion is from anecdotal experience and not aligned with current requirements
- Provides specific, actionable technical feedback to other team members in PR and code reviews and identifies some opportunities for improvement

Professional & Consulting Skills

- Asks questions to discover edge cases and identify product and/or technical concerns before implementation work starts on a feature
- Asks questions about timeline or budget when talking about requested changes with the team

- Produces realistic estimates for their individual scope of work at the task level. They explain assumptions, risks, and unknowns for their estimates.
- Understands trade-offs in decision making and seeks support in applying this type of thinking to their work
- Identifies scope creep and escalates to their team, with some coaching and pairing assistance from other team members
- Actively seeks buy-in for technical direction and process decisions from members of their project team
- Manages their personal scope of work to meet deadlines most of the time and consistently notifies the team if they may not be able to do so
- Navigates project management tools and writes user stories and other documentation
- Contributes their technical and consulting opinions in client and internal meetings
- Assists more senior engineers in pre-sales client activities (discovery, scoping, estimation, etc)
- Explains technical and business decisions to clients, with some coaching and pairing assistance from other team members
- Handles risk, change, and uncertainty within their personal scope of work effectively, with some coaching and pairing assistance from other team members

Software Engineer III

Level 3 Software Engineers are independent team members who can not only organize their own daily work in a productive manner but also effectively estimate their work and stay aware of prioritization. They may be beginning to identify strengths and skill areas that they want to hone and specialize in. They also actively seek out opportunities to lend expertise to their team members and provide mentorship to others.

Typical Years of Prior Experience: 3-5

Salary Band: \$100,000 - \$125,000

Responsibilities & Impact

- Consistently produces high quality work that may require only minor adjustments
- Takes ownership of larger portions of a project and/or code base as a subject matter expert (SME)
- Demonstrates leadership abilities within their project team
- Supports project leads (Senior or Principal Engineers) proactively
- Actively participates in helping to craft estimates and is more engaged in forward project planning
- Leads phone screens, code reviews, and interviews for new candidates

Technical Skills

- Works on high complexity features, such as those that integrate multiple systems or call out to a third party, independently
- Effectively debugs high complexity issues in the code using a systematic approach, with some coaching and pairing assistance from other team members. High complexity issues are those where the remediation steps are unknown and may require large refactors or multi-level system changes.
- Executes medium complexity refactors, such as those that touch multiple components within many layers of the application
- Models data for medium complexity features, such as those that require join tables
- Consistently delivers code with test coverage for all of the primary functionality and some of the non-primary functionality, striving for at least 75% coverage
- Delivers code with error handling for user input and other critical data errors in integral parts of application functionality
- Consistently writes useful abstractions to increase code reusability and extensibility
- Provides detailed documentation for their work most of the time, including PR descriptions, commit messages, README updates, or content in the project management tool, with some coaching and pairing assistance from other team members
- Communicates their opinions on technical matters and can explain the justifications behind their implementation decisions, appropriate to constraints of relevant requirements
- Decomposes complex requirements into constituent parts and documents these tasks as effective stories
- Provides supportive, specific, actionable design and product feedback and suggests feasible alternatives
- Provides supportive, specific, actionable technical feedback to other team members in PR and code reviews, and identifies areas for refactoring, while providing high-level implementation direction

Professional & Consulting Skills

- Proactively manages scope with an eye towards timeline and budget, with some coaching and pairing assistance from other team members
- Produces realistic estimates for their individual scope of work at the story level. They explain assumptions, risks, and unknowns for their estimates.
- Explains trade-offs in their decision making, with some coaching and pairing assistance from other team members
- Identifies scope creep and escalates to their team. Offers alternatives to the team and presents those alternatives to the client.
- Explains technical and business decisions to clients
- Leads client calls and negotiates scope with the client when necessary, with some coaching and pairing assistance from other team members

- Manages client expectations and has difficult conversations with clients, with some coaching and pairing assistance from other team members
- Finds opportunities to unblock their team members' work some of the time
- Reliably completes necessary project management tasks in addition to technical tasks
- Manages "up" to project leads and more senior members of the team with tact and effectiveness
- Handles risk, change, and uncertainty within their personal scope of work effectively. Handles uncertainty within project scope of work effectively and supports team members through the uncertainty, with some coaching and pairing assistance from other team members

Senior Software Engineer

Our Senior Software Engineers are those engineers who have strong technical and consulting skills and who have demonstrated leadership ability with positive responses and feedback from their peers and team members. They may specialize in specific technical or consulting areas though not necessary. Our senior engineers should aim to support the growth of their team members through mentorship and coaching.

Typical Years of Prior Experience: 5-8

Salary Band: \$120,000 - \$160,000

Responsibilities & Impact

- Serves as technical lead on projects which includes:
 - Making technology selections
 - Establishing architecture
 - Managing the workload and work assignments of other team members while staying conscientious of individuals' strengths, weaknesses, and goals and playing to these when managing work assignments
 - Collaborating with design and/or product leads on scope and definition
 - Contributing to the Project Weekly meeting
 - Ultimately shepherding the execution of the technical vision of the project
- Works with the other leads on a project (product, design, etc) to lead collaboratively
- Demonstrates strong technical abilities, through regular contribution of quality code and sound architectural decisions
- Clearly articulates requirements and direction to other members of the team
- Proactively provides feedback to Tandem's leadership team on processes (hiring, feedback, delivery, sales, etc) to contribute to continuous improvement of the organization as a whole

Technical Skills

- Works on high complexity features, such as those that integrate multiple systems or call out to a third party, independently.
- Delivers code that is easily understood by all members of the team and takes steps to make sure the team learns from their code.
- Effectively debugs high complexity issues in the code using a systematic approach. High complexity issues are those where the remediation steps are unknown and may require large refactors or multi-level system changes.
- Executes high complexity refactors, such as those that change the contracts between integrations.
- Models data for high complexity features, such as those that require polymorphic associations, manipulation of advanced SQL concepts like views, triggers, or stored procedures, or requires complex normalization while considering performance
- Builds scalable frontend solutions with an eye towards component architecture (separating business and presentation logic), accessibility, performance, and other web best practices
- Consistently delivers code with test coverage for most of the primary functionality, and some of the non-primary functionality. Primary functionality is that which is needed to meet the core requirements, such as data parsing logic. Nonprimary functionality is non-essential to the core requirements, such as a helper function for displaying date strings.
- Delivers code with error handling for user input and other critical data errors in integral parts of application functionality providing graceful fallback conditions
- Builds solutions with an awareness of web security best practices, such as the OWASP Top Ten
- Provides detailed documentation for their work most of the time, including PR descriptions, commit messages, README updates, or content in the project management tool
- Communicates their opinions on technical matters and can explain the justifications behind their implementation decisions, appropriate to constraints of relevant requirements while also explaining other solutions considered and the benefits and considerations of those approaches
- Resolves technical debt proactively within the framework of overall client and project objectives
- Supports other team members in languages and frameworks that they may be less comfortable with by drawing on past experiences and breadth of technical knowledge
- Collaborates with design, product, and other disciplines on the scope and definition of features

Professional & Consulting Skills

- Successfully plans and delivers large, long-term projects and adeptly negotiates scope tradeoffs with clients

- Defines roadmaps and sets vision for long-term projects
- Proactively manages scope with an eye towards timeline and budget
- Produces realistic estimates for their team's scope of work at the sprint level. They explain assumptions, risks, and unknowns for their estimates.
- Explains trade-offs in their decision making
- Leads client calls and negotiates scope with the client when necessary
- Manages client expectations and has difficult conversations with clients
- Actively solicits opinions of all members of the team and coaches them to formulate well-researched, technically sound opinions
- Supports their team member's delivery with helpful and kind accountability strategies
- Mentors their teammates in an open, respectful, flexible, empathetic manner
- Handles uncertainty within project scope of work and team effectively and guides team members through that ambiguity

Principal Software Engineer

A Principal Software Engineer has extensive engineering experience and has contributed significantly to the development of multiple large-scale enterprise systems throughout their career. Our principal engineers are trusted advisors in all areas—to their project teams, Tandem clients, and the Tandem leadership team.

Typical Years of Prior Experience: 8-10+

Salary Band: \$155,000 - \$180,000

Responsibilities & Impact

- Successfully plans and delivers complex, multi-team or system, long-term projects, including ones with external dependencies
- Provides strategic guidance to clients outside of the realm of pure technology, including: organizational design, process, hiring, digital transformation, legacy systems, etc.
- Consistently prioritizes the “big picture”: thinking about systems and architecture and how choices impact the client and project team in the long-term

Technical Skills

- Guides large-scale and long-term refactoring at the application, system, and infrastructure levels while supporting and coaching other team members
- Decomposes large-scale enterprise systems and architectures in an easy to understand way for other team members
- Advocates for software testing practices and CI/CD implementations with other

team members and with clients

- As an individual contributor, delivers code with complex error handling logic, including useful reraises, logging, and very few if any fatal exceptions
- Provides detailed documentation for their work most of the time, including PR descriptions, commit messages, README updates, or content in the project management tool with the goal of educating and mentoring their team members and clients
- Has advanced technical mastery of multiple languages and frameworks, and competency with a breadth of others
- Delegates implementation work to appropriately-leveled team members to meet project needs and grow their skills
- Collaborates with design, product, and other disciplines on the scope and definition of architecture, systems, projects, etc

Professional & Consulting Skills

- Establishes trust with clients as a strategic advisor in matters of process, people, and product in addition to technology
- Navigates and resolves ambiguity at both the technical and business levels while supporting and coaching other team members
- Proactively identifies strategies to add business value for clients, both within and outside of technical solutions
- Creates opportunities and sponsors their team members to lead initiatives within their project
- Provides support and coaching to less experienced team members on technical implementations and strategies for client engagement
- Makes highly effective use of delegation and team management to achieve success
- Adeptly uses pairing as a mentorship and coaching strategy with other team members

Engineering Manager

Our Engineering Managers are Senior or Principal Software Engineers who are committed to supporting the professional growth of their team members, in addition to their hands-on-keyboard delivery responsibilities. Their workload is split 50/50 between people management and delivery time.

Annual Salary Add-on: \$7,000 - \$10,000

Responsibilities & Impact

- Manages up to 6 software engineers of various skill levels through monthly 1:1s (at minimum)
- Establishes high-quality relationships with their direct reports
- Mentors and coaches their direct reports in both technical and professional/consulting skills
- Identifies growth opportunities through the solicitation of feedback and / or direct observation for their direct reports
- Collaborates with their direct reports on developing goals aimed at any relevant growth areas
- Conducts twice-annual values-driven performance reviews for each of their direct reports
- Performs salary adjustments and promotions for each of their direct reports
- Initiates corrective action for their direct reports' performance, if necessary
- Proactively sponsors their direct reports for opportunities outside their direct reports' project teams
- Advocates for their direct reports' concerns and needs with Tandem's leadership team
- Navigates difficult conversations with care and empathy
- Communicates thoughtfully and adapts to different communication styles
- Shepherds the engineering hiring process and owns communication with candidates throughout the process
- Actively participates in weekly Tandem leadership meetings
- Defines processes and sets delivery standards for the organization
- Researches, recommends, and implements practices and tools to support the business
- Assesses culture needs based on conversations with their direct reports and the rest of the company and makes recommendations for any necessary changes
- Leads by example modeling values-driven behavior and choices and coaching all team members to do the same