



Understanding Engineering Career Ladders

Public Version

Internal CTO Seminar at Gen

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Ladder Types



Step stool



Step ladder



Step ladder



Platform ladder



Telescoping ladder



Extension ladder

([source](#))

Before We Begin...



- Why this talk?
- Disclaimers
 - Career ladders, job titles, and responsibilities are not standardized
 - The talk is illustrated on software engineering
 - The talk is generic with no Gen specifics

Can You Spot the Difference?

- Programmer
- Software Developer
- Software Engineer
- Software Development Engineer (SDE)

<https://softwareengineering.stackexchange.com/a/182147/96619>



(source)

Introduction

What Is a Career Ladder?



<https://www.levels.fyi/>

<https://progression.fyi/>

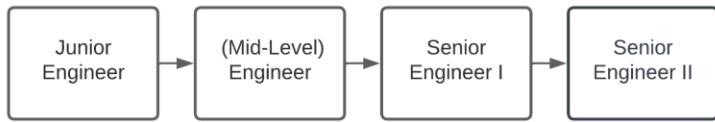
Why Do We Need Career Ladders?

- Engagement – career progression
- Clarity, especially for individual contributors (ICs)
- Encourage companies to become clearer in what they expect from people
- A tool for managers (performance management, individual development)
- Consistent and more transparent promotion handling
- Help with recruiting (hiring bar, apples-to-apples comparisons)
- Help with compensation ranges for HR

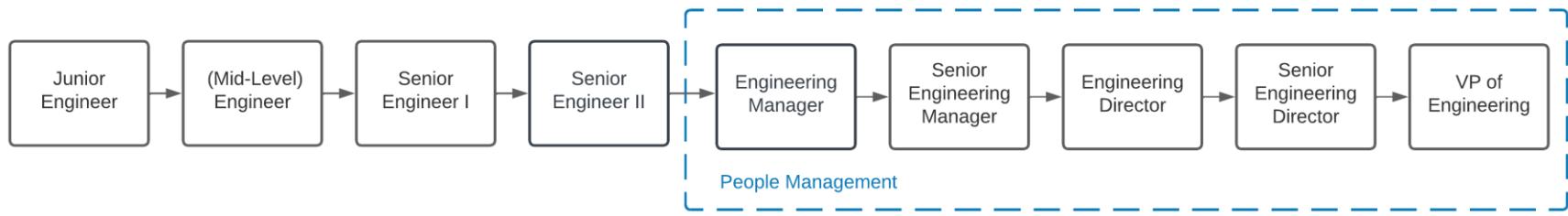


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An Example Career Ladder – "Starter Pack"

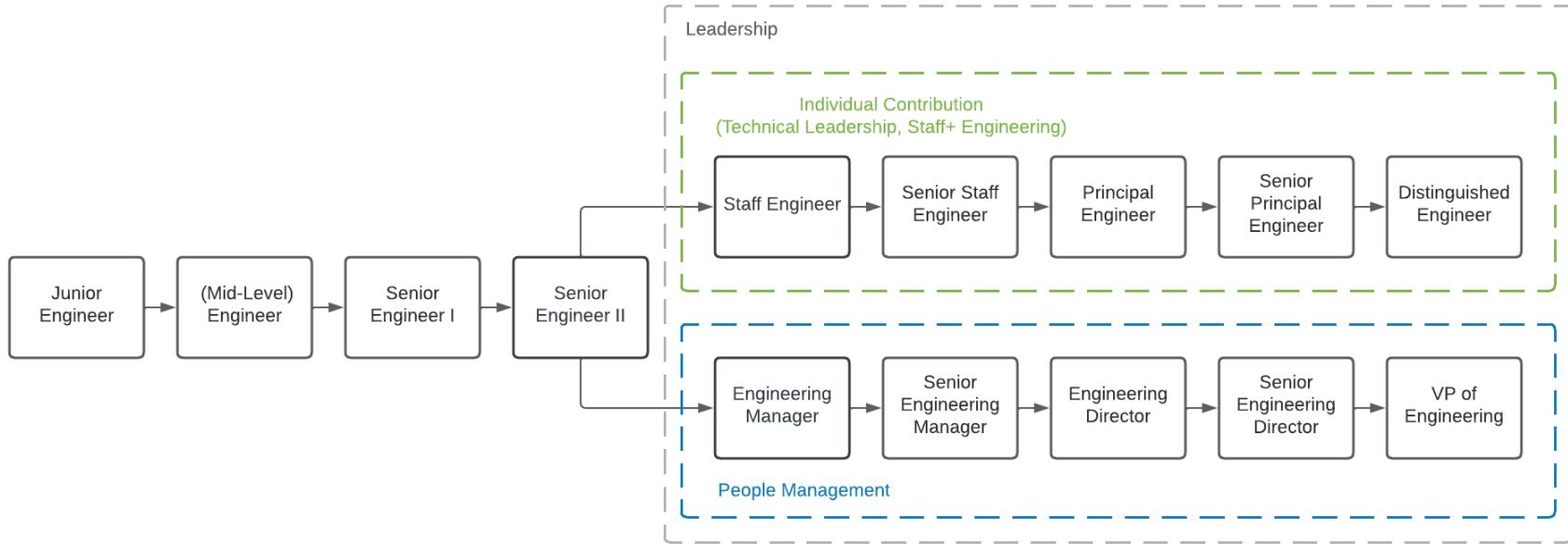


An Example Career Ladder – People Management Track



Petr Zemek: To Manage or Not To Manage? That Is the Question... – GDC 7 (2025-06-05)

An Example Career Ladder – Technical Leadership Track

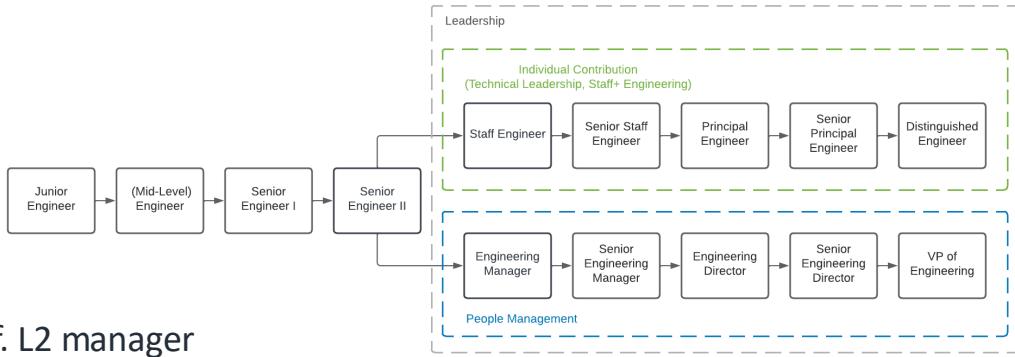


Petr Zemek: Staff+ Engineering – GDC 6 (2025-01-29)

Let's Dive In

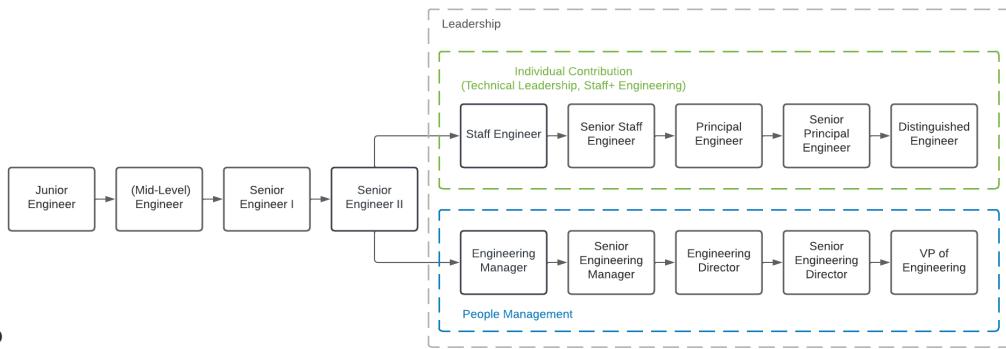
Fundamentals

- Identification
 - Titles (Senior Engineer)
 - Numbers (L5 engineer, grade 8 engineer) – c.f. L2 manager
- Senior <blank> vs I/II/III
 - Engineering Manager (EM) and Senior EM, Engineer I and Engineer II
- Internal vs external titles (job vs business titles)
 - Senior Director vs Global Head of Platform Engineering
- Grade/level vs position
 - Grade 10: Engineering Manager or Staff Engineer
- Position vs role
 - Project Manager, Architect
- Beware: Job titles might not correspond to the actual position or may be inflated
- Beware: Same job title can mean different things



Common Questions

- How many levels there should be?
- Should compensation be directly tied to levels?
- Do level changes come with more responsibility?
- When should a person be promoted?
- Who should a person report to?
- Should people aim to get as high as possible?
- Which levels are considered “final” (so-called *career positions*)?
- What does “senior” mean?
- What are the responsibilities and expectations from different positions?



How To Specify Expectations on Positions

- Option 1: Job descriptions

Software Engineer

Job Reference: MST11225
LM People Job Code/Title: E1072I / Software Engineer
Location: Havant
Programme / Functional Group: MST IS - Postal - Multiple

Description of Business Environment:

The job entails working in the Systems Solutions programme on a growing portfolio of programmes in the UK and Europe for a range of commercial customers, primarily focused on providing systems to Postal Authorities. The Systems Solutions Business Area is entering a major growth phase as Customers invest in exciting high technology Enterprise Solutions.

Specific Job Description:

Reporting to the Systems Solutions Software Engineering Manager, and under general direction of the Engineering Leadership Team, the role provides support to internal programmes and for operational systems used by Systems Solutions customers.

Under the direction of the Team Lead:

- Contribute to team success supporting systems, software and infrastructure engineers to design high level architectures for enhancements to operational systems.
- Support to implementation teams through the development, testing, and system acceptance phases of enhancements to the operational system.
- Support to Integration during software deployment phases.
- Support technical investigations of problems raised against the operational systems.
- Work with senior engineers in discussions with customers during requirements analysis, converting operational needs into technical requirements specifications.

Tasks will relate to:

- Oracle database design and development.
- PL/SQL programming.
- Support of Oracle 8i, 9i, 10g, 11g.

The candidate will be exposed to several disciplines (Human Factors, Systems and Software Engineering).

Required Skills:

- Degree in Computer Science or Software Engineering, or relevant subject to the role

<https://studylib.net/doc/6824639/software-engineer>

How To Specify Expectations on Positions (Continued)

- Option 2: Competency matrices / career path matrices (CPM)

2		Dex	Str	Wis	Cha
3		Technical Skill	G(et)S(tuff)D(done)	Impact	Communication & Leadership
4					
5	Engineer I (<1-2)	Broad knowledge of core CS concepts. Focus on growing as an engineer, learning existing tools, resources and processes	Develops their productivity skills by learning source control, editors, the build system, and other tools as well as testing best practices Capable of taking well-defined sub-tasks and completing these tasks	Developing knowledge of a single component of our architecture	Effective in communicating status to the team Exhibits RTR's core values, focuses on understanding and living these values Accepts feedback graciously and learns from everything they do
6					
7		Writes correct and clean code with guidance; consistently follows stated best practices Participates in technical design of features with guidance	Makes steady progress on tasks; knows when to ask for help in order to get themselves unblocked	Self-sufficient in at least one large area of the codebase (multiple services in a pillar, all frontend code related to a main funnel flow) with a high-level understanding of other components	Gives timely, helpful feedback to peers and managers Communicates assumptions and gets clarification on tasks up front to minimize the need for rework
8	Engineer II (2-6+)	Rarely makes the same mistake twice, begins to focus on attaining expertise in one or more areas (eg, Java/JS/Ruby/iOS development, performance best practices, efficient use of data stores, messaging, etc). Learns quickly and makes steady progress without the need for constant significant feedback from more senior engineers.	Able to own small-to-medium features from technical design through completion; Capable of prioritizing tasks; avoids getting caught up in unimportant details and endless "bikeshedding"	Capable of providing on-call support for their area including systems that they are not familiar with	Solicits feedback from others and is eager to find ways to improve Understands how their work fits in to the larger project and identifies problems with requirements

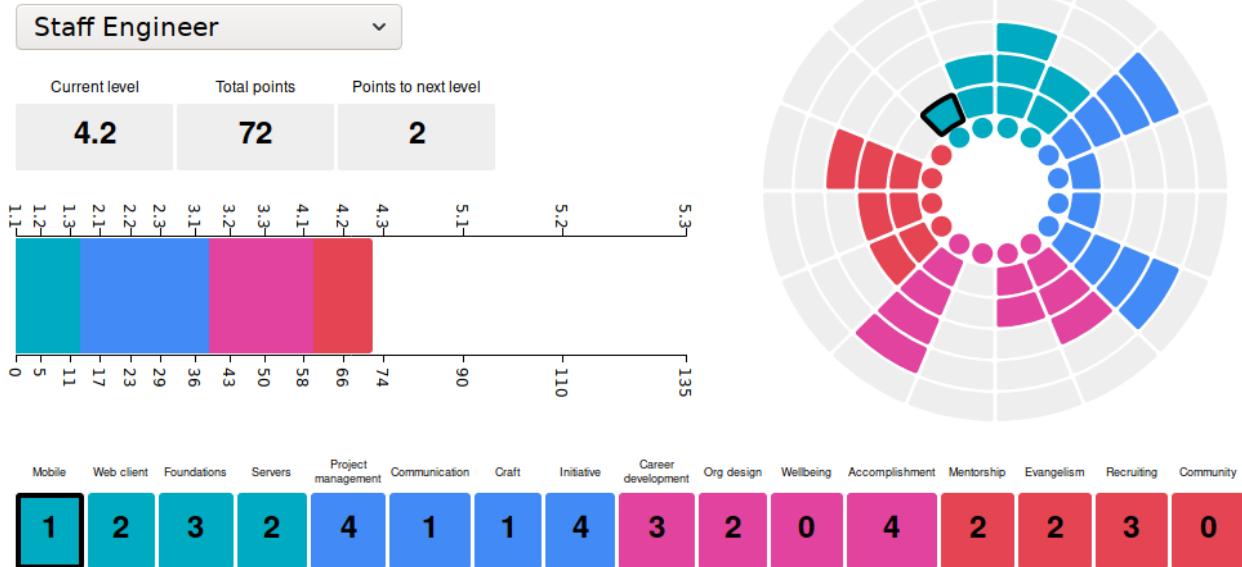
<https://dresscode.renttherunway.com/blog/ladder>

How To Specify Expectations on Positions (Continued)

- Option 3: Other

Example:

Cersei Lannister

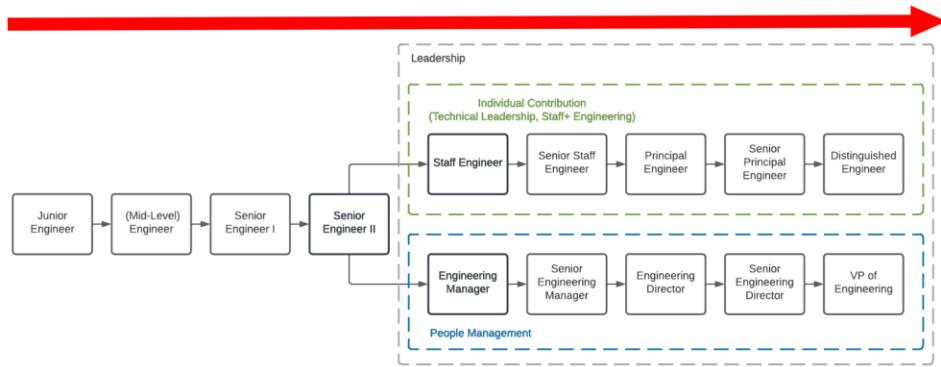


<https://snowflake.medium.com/> (now defunct)

What Lies Beyond

Usually, the higher up you go:

- The broader your scope and area of impact are
- The more power you have to influence things
- The more responsibility you have
- The more strategically you have to think
- The higher your compensation package is
- The more you have to deal with people
- The more soft skills matter
- The more meetings you have
- The less hands-on work you do
- The fewer people on that position there are
- The more abstract the job descriptions are



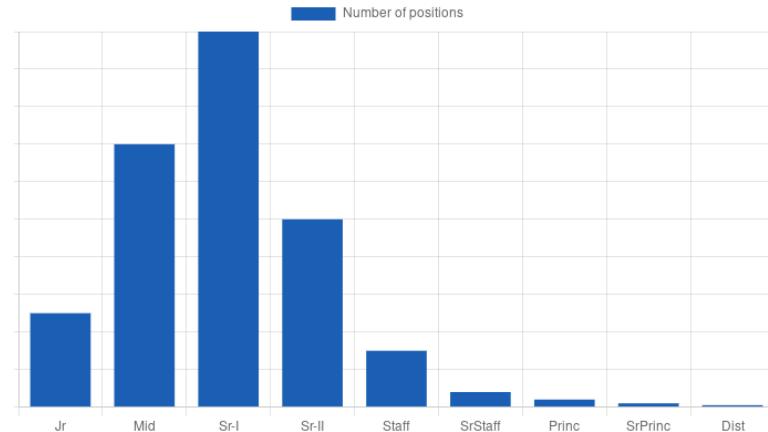
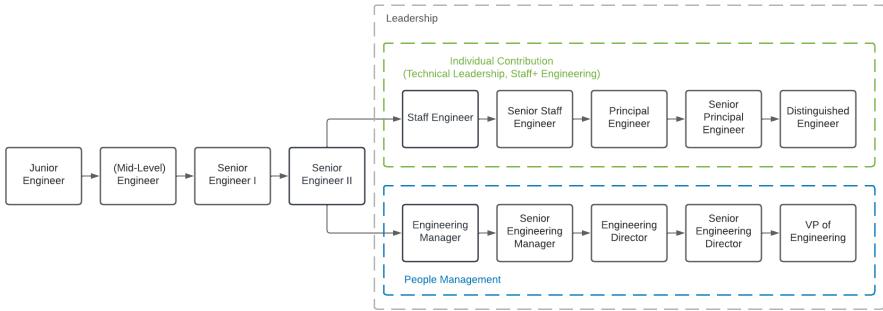
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Some Other Positions, Roles, and Names

- Team Lead
- Tech Lead
- Architect
- Product Manager
- Project Manager
- Program Manager
- Scrum master, Product owner
- Fellow
- C-level executive (CTO, CFO, ...)
- ...

Managing Expectations

- What needs to happen for a promotion:
 - You need to prove your worth
 - There has to be a business need + opportunity
 - There has to be a budget
- Moving into leadership/management is more a different job than a promotion
- You might not want to aim for a promotion
- Requirements/expectations are no a checklist
- Comparing yourself to others is tricky
- Expectations concerning the number of available positions



Conclusion

Related Reading and Watching

- My blog posts:
 - [My Career So Far \(2023-12\)](#)
 - [Choosing a Software-Engineering Career Path \(2022-04\)](#)
 - [Not All Developers Want to Be Managers, and That's OK \(2019-09\)](#)
- My talks:
 - [To Manage or Not To Manager at GDC7 \(2025-06\)](#)
 - [Staff+ Engineering at GDC6 \(2025-01\)](#)
 - [A Look at Software-Engineering Career Ladders \(2021-04\)](#)
- And, of course, there is a myriad of available books, articles, videos, ... ;-)



ChatGPT: 'Generate an image suitable for a presentation slide titled "Related Reading and Watching"'

Recommended Books

- General:
 - Daniel Heller: [Building a Career in Software](#) (2020)
 - Gergely Orosz: [The Software Engineer's Guidebook](#) (2023)
- Staff+ engineering:
 - Tanya Reilly: [The Staff Engineer's Path](#) (2022)
 - Will Larson: [Staff Engineer: Leadership beyond the management track](#) (2021)
- People management
 - James Stainer: [Become an Effective Software Engineering Manager](#) (2020)
 - Camile Fournier: [The Manager's Path](#) (2017)



Summary and Q&A

- Career ladders, job titles, and responsibilities are **not standardized**, and there is a **lot of confusion**
- There are **many reasons for having career ladders** (engagement, clarity, development, hiring, ...)
- Presented an **example ladder with two tracks**: People management and Technical leadership (Staff+ engineering)
- Explained **common topics** (identification, grade vs position, job title vs business title, position vs role, ...)
- Covered **common questions** (how many levels, which are final, when to promote someone, ...)
- There are **two common ways** of specifying **requirements**: Job descriptions and Competency matrices (CPM)
- The **higher up** you go on the ladder, the **more differences there are**
- You need to **manage your own expectations** (requirements for a promotion, higher levels are not for everyone, ...)
- There are **many different positions or roles available** on top of the common ones (Tech Lead, PM, ...)
- There are **additional resources** for you to read or watch if you want to learn more