

Technical Roles

Job Families

- Front End
- Back End
- Full Stack
- Dev Ops
- Technology Specific

Front End

- Website/Web Applications
 - Controlling how elements are presented on the screen
 - Communicating with internal/external APIs
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- Technologies: React, Angular, Vue, Django, Ruby on Rails, Webpack
 - Languages: JS, TypeScript, Python, Ruby, etc.

Back End

- Building APIs
 - Building services that manage data and business rules
 - Integrating services to make decisions about the data
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- Technologies: Spring, Node, .Net, Docker, K8
 - Languages: Java, JS, TypeScript, C#, etc. (really anything)

Full Stack

- Combines both Front/Back end
 - More common at smaller companies
 - Someone who is comfortable with a breadth of technology
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- Technologies: All
 - Languages: All

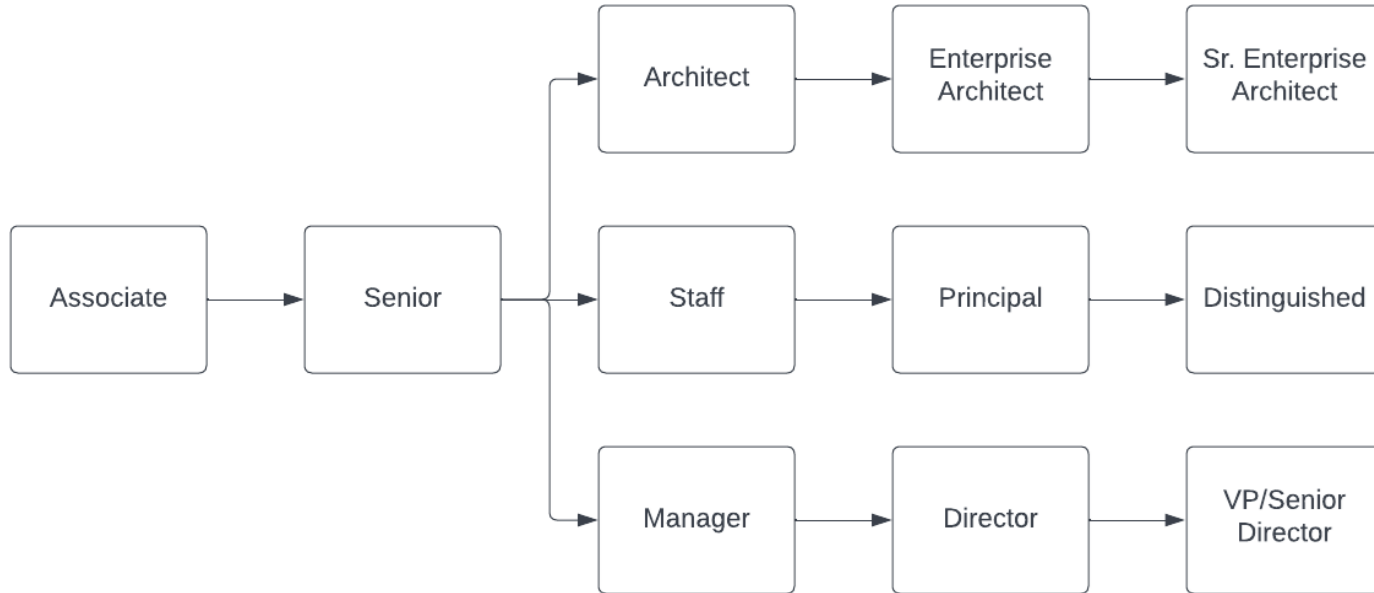
Dev Ops (Site Reliability Engineer/SRE)

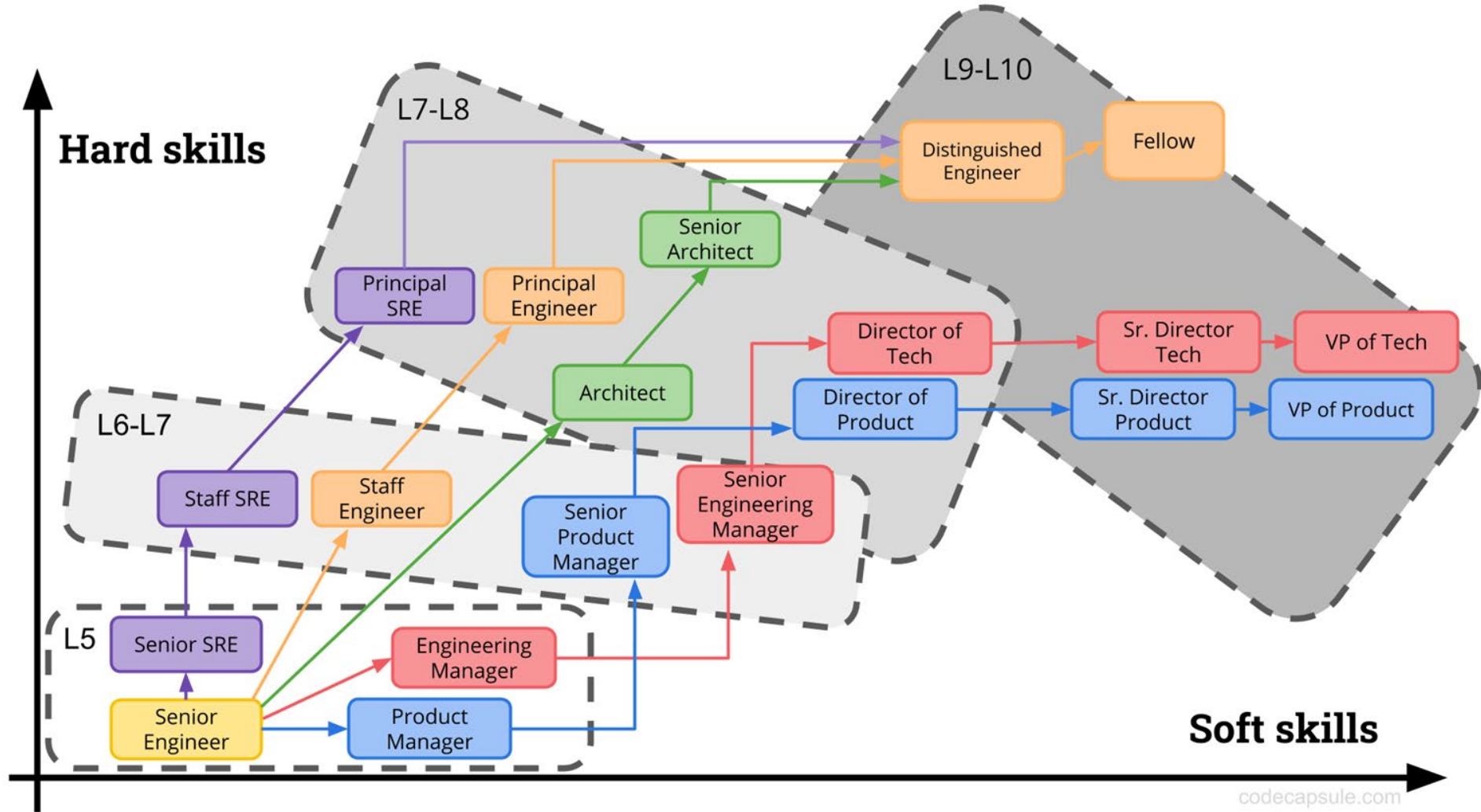
- Provisioning infrastructure for software applications
 - Server, network, and database config via infrastructure as code
 - Creating tools for developers (CI/CD Pipelines, security, etc.)
 - Usually favor one cloud (GCP vs. AWS vs. Azure)
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- Technologies: Terraform, Cloudformation, Docker, K8
 - Languages: YAML, Bash, Python, Go

Technology Specific

- Expert in one piece of technology
 - Usually a widely used vendor product or cloud service
 - Often done as part of a consulting type role
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- Examples: AWS/Azure, SAP, Salesforce, MuleSoft, etc.

Career Progression





Data Science

- Specialized (NLP, Deep Learning, Machine Vision)
- Management
- Product
- Software Engineer

Specialized

- Domain expert in one specific problem or solution
 - Building the models (code or writing requirements)
 - Individual Contributor (IC) role
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- Technologies: Jupyter, R Studio, OpenCV
 - Languages: Python, R, C++

Management

- Leading teams of data scientists or entire organizations
 - Tracking progress towards major objectives
 - Growing and mentoring people in your organization
 - Unblocking your team
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- Skills: Clear communication, time management, humble

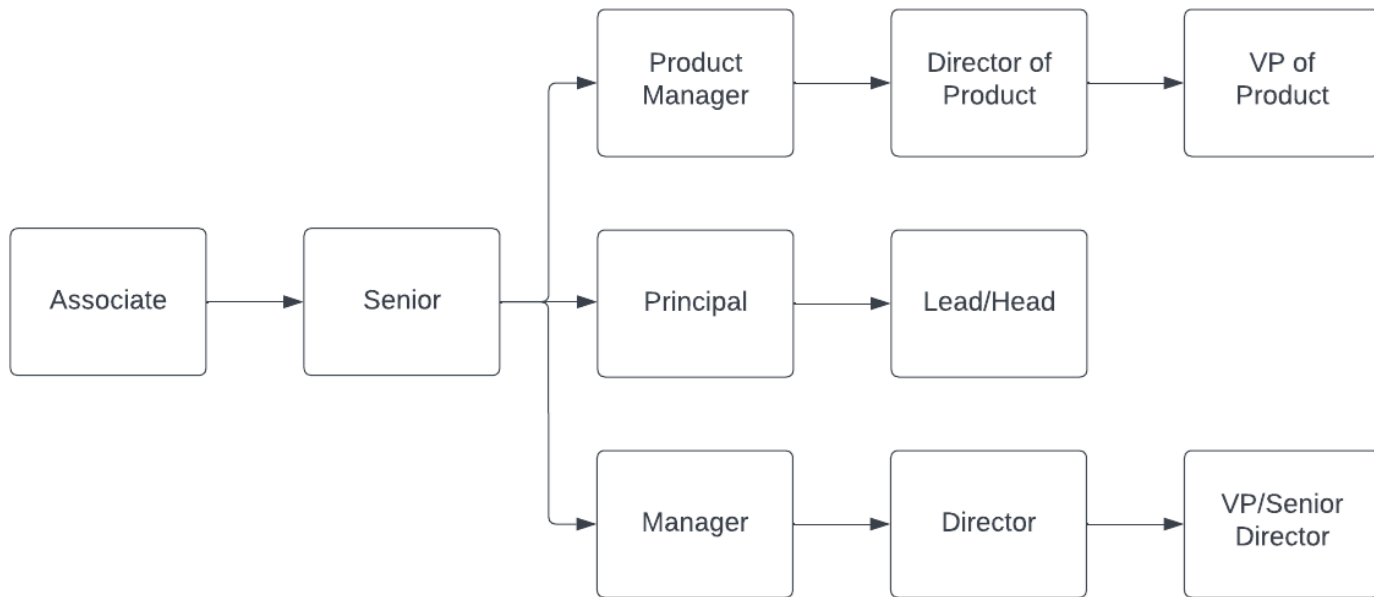
Product

- Role shift towards developing the actual product
 - Translating customer needs into technical requirements
 - Developing the questions the models are built to answer
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- Skills: Interviewing, Customer Analysis, Psychology

Software Engineer

- All roles discussed in the first half of this presentation
- The scope of that role is usually in support of a data analysis pipeline
- Less academic and more of a “coding” role

Career Progression



Questions?

Resources:

- Hard/Soft Skills Image:
 - <https://codecapsule.com/2021/07/15/the-skills-map-of-senior-tech-career-progression/>
- Salary Info:
 - www.levels.fyi
 - www.teamblind.com (discussion topics as well)
 - H1bdata.info (to set your baseline)