



Ladder

Level	I	II	III	IV (Senior)	V (Principal)	VI (Architect)
Experience, Scale, Scope, Skill						
Typical Years of Experience	0-2	1-2	2-4	5+	10+	15+
Scope of Influence	Self	Project	Team	Engineering	Product Development Organization	Duo
Time Horizon of Effort	1 sprint	2 sprints	2+ sprints	1 quarter	6 months - 1 year	1-2 year
Practicing Skill Level	Beginner - Demonstrates a limited use of a competency, requires additional training to be able to apply without assistance or direction.	Intermediate - Demonstrates a functioning working competency and is effective without the need for direct support.	Advanced - Demonstrates an in-depth application of competency and is able to consult or lead others in their application of it.	Expert - Demonstrates a mastery of competency and is recognized as an authority on the subject by peers and leaders.		Master - Evolves our collective understanding of the subject / practice.
Technical						
Summary	Responsible for implementing and maintaining scoped product or	Responsible for scoping and implementing individual-level	Responsible for designing and implementing team-level	Responsible for designing and owning technical solutions for	Responsible for solving complex, mission-critical problems with an	Responsible to company for complex mission-critical



	system features.	technical solutions with minimal guidance.	technical solutions.	broad or complex requirements with insightful and strategic approaches.	approach that lasts.	systems.
Activities	<p>(SDLC: develop+test)</p> <p>Writes code and tests, and uses Phab diff review process.</p> <p>Level I Technical Examples</p>	<p>Improves collaboration by breaking down tasks into smaller tasks.</p> <p>Ensures quality of code within team, by participating in Phab diff review and other means.</p> <p>Level II Technical Examples</p>	<p>(SDLC: design + deploy + maintenance)</p> <p>Guides team to improve code structure and maintainability.</p> <p>Independently scopes flexible technical solutions.</p> <p>Anticipates technical uncertainties.</p> <p>High-level story breakdown from specs.</p> <p>Level III Technical Examples</p>	<p>(SDLC: analysis+design)</p> <p>Describes, analyzes, and convinces others about major technical tradeoffs and decisions.</p> <p>Work with Product Manager, Engineering Manager, and Designer to spec out high-level design for large projects from PRD.</p> <p>Level IV Technical Examples</p>	<p>Owens at least one large, mission-critical project or multiple complex, team-level projects.</p> <p>Leads technical decisions in the company.</p> <p>Level V Technical Examples</p>	<p>Anticipates future company needs and creates a compelling technical vision to realize them.</p> <p>Level VI Technical Examples</p>
Communication						
Activities	<p>Communicates their individual work.</p> <p>Asks for guidance</p>	<p>Initiates conversations to get the support/clarity necessary to carry</p>	<p>Communicates decisions through technical design artifacts, tech talks, and leading</p>	<p>Initiates and facilitates meaningful discussions around complex</p>	<p>Clearly communicates technical issues and contributes ideas to the</p>	<p>Effectively communicates complex technical issues to audiences both</p>



	<p>when necessary and confirms understanding of problems and/or next steps and follows up if necessary.</p> <p>Level I Communication Examples</p>	<p>out a task.</p> <p>Identifies appropriate form of communication given the specific situation.</p> <p>Level II Communication Examples</p>	<p>team meetings.</p> <p>Mentors junior engineers via pairing, technical design review, and code review.</p> <p>Effectively communicates with a cross-functional audience.</p> <p>Level III Communication Examples</p>	<p>issues.</p> <p>Identifies and proposes strategies around technical problems affecting their team, communicates standards and gets buy-in on solutions.</p> <p>Level IV Communication Examples</p>	<p>overall technical vision of the engineering organization.</p> <p>Level V Communication Examples</p>	<p>inside and outside the company.</p> <p>Level VI Communication Examples</p>
Leadership						
Activities	<p>Communicates with their manager or team if they need clarification or disagree on a plan.</p> <p>Level I Leadership Examples</p>	<p>Identifies opportunities to help teammates in achieving team goals.</p> <p>Prioritizes work within team in alignment with strategic initiatives and company goals.</p> <p>Level II Leadership Examples</p>	<p>Considers the effects of their work across multiple teams and proactively manages potential issues.</p> <p>Identifies team-impacting problems, suggests solutions, and drives resolutions. Mentors junior engineers both technically and culturally.</p>	<p>Can interpret, add to, and execute against cross-functional plans.</p> <p>Works with key stakeholders to make critical decisions.</p> <p>Leads initiatives and meetings within the team and functional area.</p> <p>Motivates and</p>	<p>Actively collaborates with other functional areas to design and build solutions.</p> <p>Leads initiatives across functional areas.</p> <p>Leads by example and inspires others with an emphasis on broad, organization-wide initiatives.</p>	<p>Leads complex strategic initiatives to solve long-term company problems.</p> <p>Influences company goals and strategy while being responsible for key metrics.</p> <p>Builds other leaders inside the company.</p> <p>Level VI Leadership</p>



			Level III Leadership Examples	empowers teammates to achieve a higher level of performance. Garners resources for the whole team to complete its work. Level IV Leadership Examples	Level V Leadership Examples	Examples
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Examples

Level I

Technical

- C.H. created a feature to allow an organization to authorize Gary the IT Admin to send phishing campaigns without recurring approval requests.

Communication

- M.I. provided status updates to their manager when new information increased the estimate for a task that they had estimated at a day to complete.

Leadership

- M.A. raised concerns about completing their task before branching at the end of the sprint.

Level II

Technical

- M.A. owned the technical design and implementation of the Denied Authentications Report modeled after similar reports.
- C.H. owned the design and delivery of the Phishing Campaign API between Duo Insight and the Admin API.



Communication

- X.A. was tasked with figuring out how to performance test the Duo Network Gateway. They took a vague task, distilled what needed to be done, and then presented on the technology they used, Locust.io, to both their team as well as during a Staff Meeting Lightning Talk

Leadership

- M.I. engaged with the gEECS organization at the University of Michigan attending their events resulting in a summer intern for the Applications team.

Level III

Technical

- D.A. developed a system to accept Azure AD authentications using OIDC and modifying the Duo Prompt to perform JWT based signing.

Communication

- J.E. developed strong working rapport with their design peer, L.U. They reduced both technical as well as remote barriers by soliciting constant, iterative feedback on their implementation of designs over Slack, Zoom, or whatever means necessary.
- B.O. was working to implement Administrative Units against the data pipeline. They reached out to the DataEng team to validate their approach instead of just surprising the team with code for review.

Leadership

- G.E. helped the Endpoint team be successful with their changes by taking ownership of the team's mid-sprint meeting, mentoring and onboarding multiple new hires including a junior addition to the team, and focusing the team's sprint commitments on being realistic and complete without sacrificing quality or throughput.



Level IV

Technical

- J.O. led the Administrative Units project that refactored all Admin Panel database queries to pass through an access control layer.

Communication

- J.O. used Herald rules, Wiki pages, and email to communicate clearly to the team changes to development workflows impacted by the Administrative Units architecture. The communication made the implications easy to grasp and placed the bulk of the initial burden on the Admin Units team.

Leadership

- D.E. recognized a need for more WiX knowledge on the Windows team and stepped up to become the subject matter expert for the framework. Installers are not sexy tech but D.E. put the team's knowledge needs first.

Level V (Principal)

Technical

- E.R. collaborated with other engineering leaders to develop and implement a strategy to refactor our authentication path to be more testable, modular, and maintainable all without impacting service uptime or stability.

Communication

- B.R. researched storage solutions to replace MySQL as a general event log store at Duo, presented them to an Architecture Review Board to attain organizational buy-in and then led the implementation of the system.



- M.A. solicited feedback on our technical interviewing practices from numerous stakeholders, synthesized their findings, and developed a “paved path” approach for teams to use in technical interviews at Duo.

Leadership

- R.O worked with ISS to transition the majority of responsibility for our ETL system to their purview. They gathered requirements, helped evaluate iPaaS solutions, and transitioned control in line with their SDLC (QA, staged changes, release timelines).

Level VI (Architect)

Technical

- Z.S. iteratively developed a model for the organization to use in creating new services outside of the main service. This started with a service for the Endpoint team and has been iteratively refined with DataEng, DataSci, etc. The output of this work includes the idea of a Systems Constitution, an example system to start from and most importantly working with development teams closely at first and then on a consultative basis to help them successfully implement new web services.

Communication

- A.A. assessed the implications of FIPS 140-2 for compliance needs across our entire suite of cloud services by working with FIPS consultants and translating their knowledge to our architecture and code bases.

Leadership

- B.E. developed a 2020 Architecture vision identifying principles that should guide our engineering teams, architectural challenges we face, and specific projects to mitigate them.