William Archer

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Education: University of Pennsylvania, **B.S.E in Computer Engineering**

Windsor High School/Governor's School for Science and Technology (Engineering) Class Rank: 1/119

Work Experience:

Software Development Manager, Amazon, May 2022 - Present Remote

- Part of organization's operations leadership team. Managed a C-level initiative to reduce or migrate 80% of production services to native AWS instances, reducing total cost across Devices by $8M/mo. One of 3/25 organizations who achieved their goal. Managed additional employee to collect status updates and assist service owners on blocking issues.
- Manage geographically distributed eight person development team (college to Sr), two QAEs, and onboarded a second engineering team to expand program. Additionally, managing a firmware team owning two devices with ~140K MAU. Manage factory production issues and inventory maintenance in fulfillment centers. Work with product management, UX designers, product marketing, beta trials, and CVML algorithm teams.
- Managed a refactor of our firmware build system, our primary developer dissatisfaction. This refactor sped up build times more than 5x, supports single and multi-package workflows, provides first-class support for building across Linux/Mac/Windows development environments, and the ability to spin up new products on the existing architecture.
- Led a team through a product cancellation, three reorgs, and three public layoffs. Retained my direct reports and led the team through a complete charter pivot that put us as the owner of one of three primary business objectives for the organization. This pivot required a complete technical shift from firmware and embedded engineering to developing for Apple's WatchOS.
- Restarted and run our Manager Learning Series, a monthly lecture series by and for the ~50 SDMs in our org.
- Rated >90% in Team Effectiveness, Improvement and Innovation, Manager Skills, Job Satisfaction, Manager Satisfaction, and Inclusion by team over 6 month period. Over 1 year period, rated in top 11% of managers in my org across variety of domains (including above).

Software Development Engineer, Amazon, July 2020 - May 2022 Remote

- De-facto tech lead of a former Grand Challenges project. Led sprint ceremonies, worked with project TPM, principal engineers, and directly with VP to establish planning timelines and goal milestones for an unreleased new technology healthcare device. My work led to the project receiving additional funding and a path to product development. Established on-call process that managed software, firmware, electrical engineering, IP engineering, lab support, and ML.
- Implemented an end-to-end communication protocol for our prototype device to send raw sensor data collections over bluetooth through our Halo production application into a private data lake for ML model research. This work was a C level (Dave Limp) requirement to extend the program. Additionally, built firmware modules for dynamic adjustments and automatic attenuation for our hardware antennas.
- Asked to join organization's Operations "Bar Raiser" program, made up of senior and principal engineers across the org. Launched 1 ML model, 3 services, and 4 firmware features. Additionally trained a new member of the program. Simplified process and onboarded 4 new teams. Led Diversity, Equity, and Inclusion team for 6 months.
- Part of launch team for our org's first product offering, the Halo Band. Implemented backend service to track workout sessions in the app. Implemented content paywalling for both iOS and Android apps.

Software Engineer III, Squarespace, July 2018 - July 2022 New York, NY

- Primary backend developer on Point of Sale product. Launched on time with one year of development. Owned technical partnership with our hardware provider, Square.
- Led a Frontend Testing Working Group containing ICs from across the org to advance testing culture. Developed multi-course curriculum taught to all new engineering hires at the company. Personally wrote at peak >33% of all frontend tests in our primary codebase. Advocate and internal speaker on how to run an engineering working group. >120% increase in frontend tests across our codebase since working group kicked off.
- Advocated and developed alerting and visualization patterns in team's domain. Owned adoption of SLOs
- for our services. 0 false alarms in the last 6 months with an average incident response time of ~10 minutes. Wrote and led Diversity and Inclusion trainings for internal Employee Resource Groups. Topics included Mentorship & Sponsorship, Cultural Appropriation, Intersersectionality, and more.
- Developed new engineering interviewing patterns and questions as part of an engineering interviewing working group. Previous maintainer of one of our three onsite questions, including calibration, training, and adjustments.
- Assisted with campus recruiting and recruited our largest subset of campus class from our primary target university.

Technologies:

- Programming Languages: **C/C++**, **Java/Kotlin, Javascript/Typescript, Python, C#, HTML/CSS**, **OCaml**, and **PHP**.
- Development: React/Native, Spring, FreeRTOS, AWS, ElasticSearch, Kubernetes, Kafka, Appium, XCode