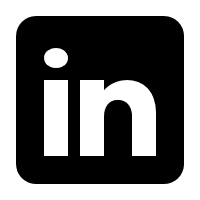
Dallas Johnson

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# Professional Skills

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| Programming Languages and Frameworks: | C++, Java, Python, Javascript, Bash, SWIG, Behave, gtest, React |
| IaC and Cloud Compute: | Terraform, AWS CloudFormation, AWS Lambda, AWS S3, AWS EC2 |
| Databases and Monitoring: | AWS DynamoDB, AWS Redshift, SQL Server, PostgreSQL, AWS Cloudwatch |

# Work Experience

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| *Present*  *Jan 2020* | **Amazon.com** – Software Development Engineer II  *Devices and Services, Alexa and Connected Technologies*   * **React Gesture Handler Integration:** Led a team of four to reimplement the React Native gesture handler library on Alexa's custom software stack. Designed and implemented swipe, long press, and drag and drop gestures to match their implementations on iOS and Android. Supports Alexa's ecosystem of over 1M third-party developers. * **Engineering and Mentorship Contributions:** Created and delivered 3D printed debug hardware to QA teams in Sunnyvale and Chennai. Reduced new hire onboarding time from three weeks to four hours. Improved codebase stability with integration tests using behave and unit tests using gtest. Built AWS Cloudwatch dashboards with weekly review processes. Improved customer-facing feature stability by quickly root-causing and fixing issues in production, especially during oncall rotations. * **Echo Offline Reminders:** Designed, implemented, and tested a secure download mechanism for reminder speech files using C++. Ensured ongoing support with automated unit and integration tests, and ensured customer privacy with delete-on-expiry and delete-on-factory-reset policies. Serves over 300M monthly user requests and prevents over 600K monthly missed reminders. * **Privacy State Recovery:** Improved Alexa's strong privacy guarantees by restoring device privacy mode even after software crashes. Prevents over 30K user-facing failures per month. |

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| *Jan 2020*  *Jan 2019* | **Amazon.com** – Software Development Engineer I  *Amazon Worldwide Consumer, eCommerce Efficiency*   * **AWS Server Capacity Scaling:** Designed and implemented a robust hardware capacity management system utilizing AWS Lambda and AWS SNS to perform real-time on-demand computation of required server capacity across Amazon. Saved Amazon over $1M annually and scaled to provide estimates of required capacity for over 80% of Amazon's server capacity. * **CloudFormation Service Reimplementation:** Restructured server capacity approval tooling using AWS CloudFormation to define infrastructure as code (IaC). Increased developer velocity by 2 developer days per month by removing manual infrastructure maintenance. * **Database Storage Optimization:** Created fast prototypes for AWS DynamoDB, AWS Redshift, AWS S3, and PostgreSQL running on AWS EC2 to analyze the cost of each option. Changed product direction, achieving a 25X cost reduction from our initial plan by convincing the team to use AWS S3. |

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| *Sep 2018*  *Jun 2018* | **Amazon.com** – Software Development Intern  *Amazon Worldwide Consumer, eCommerce Efficiency*   * **Database Scanner Redesign:** Designed a drop-in replacement database scanner for AWS DynamoDB with cost savings of over $70,000 annually. |

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| *Jun 2018*  *May 2017* | **Ardent Academy** – App Developer & Instructor   * **Class Scheduling App:** Designed and implemented a React Native app allowing parents and students to schedule classes. Synchronized app view and webview using a GraphQL backend. * **App Development Curriculum:** Wrote curriculum, including weekly presentations, sample applications, and assignment grading criteria for a 12-week React Native app development course. Instructed classes of 15-20 students. |

# Education

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| *Dec 2018* | **University of California, Irvine** – Bachelor of Science  *Major: Computer Science and Engineering, GPA: 3.84, Honors: cum laude, Dean's List all quarters* |