JACOB D. MEN

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TECHNICAL SKILLS

Languages   Java, C, C++, Python, TypeScript, JavaScript, SQL, Rust, HTML, CSS
Technologies   Yocto, Docker, Guice, AWS (CDK, DynamoDB, EC2, Fargate, Lambda, RDS)

WORK EXPERIENCE

Amazon   Sunnyvale, CA
Software Development Engineer II   December 2023 - Present

- Wrote diagnostics framework for calibrating device LEDs, allowing for extension to new drivers and platforms in reduced time using C
- Introduced real-time configuration capability in Linux Kernel power measurement drivers resulting in 70% reduced testing time and 25% improvements in power metric accuracy using C
- Redesigned and implemented a C++ metrics caching library to reduce onboarding burden and simplify code-bases for client teams, resulting in a 20% reduction in engineering effort

Software Development Engineer   August 2022 - November 2023

- Created a high performance message processing system between Amazon and third parties to synchronize device updates in real time using Java, SQS, and SNS, resulting in faster app UI interactions
- Designed and implemented an API service for aggregating and vending signal data from IoT devices enabling team to create proactive experiences on Alexa using Python, Flask, and SQLite
- Led security certification for collaboration between Alexa and Ring by auditing code and developing standards for encryption use, DDOS prevention, and logging to protect customer data

Software Development Engineering Intern   May 2021 - August 2021

- Architected a new Alexa service using Java to reduce customer order pickup times to under two minutes in Whole Foods stores nationwide
- Collaborated with engineers and product managers to define scopes and uses of customer order APIs to ensure encryption and privacy of user data
- Wrote unit and integration tests to confirm proper operation of AWS Fargate service using Java, JUnit, Guice, and Mockito

Tesla   Fremont, CA & Elgin, IL
Controls Programming Intern   May 2020 - August 2020

- Programmed high speed machinery to assemble Model Y electric motors using industrial program controllers and sequential function charts
- Implemented an alarm and safety system for an assembly line allowing for fast responses to malfunctions using Ignition SCADA system
- Designed a responsive UI for tracking wireless hardware connectivity issues using HTML, CSS, Python, and SQL resulting in quick feedback and easy debugging

EDUCATION

University of Illinois at Urbana-Champaign
Masters in Computer Science   August 2022 - August 2024
Bachelor of Science in Mathematics and Computer Science   August 2019 - May 2022