Jacob C. Mathura

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Software Engineering & Health Tech

Passionate software engineer dedicated to creating innovative, user-centered solutions that improve lives and drive meaningful change through technology.

Technical Skills and Expertise

Programming: Java, AWS, TypeScript, Go, Perl, JavaScript, React, Python, Ruby, SAS, R, C
Core Competencies: System Design, Spring Boot, CI/CD, Mentorship, Operational Excellence, Code Reviews, Integration Testing, Unit Testing, Cloud Computing, Web Applications

Experience

Amazon: Devices Org – Denver, CO   August 2020 – August 2024
Software Development Engineer II
Technologies: Java, JavaScript, Perl, Ruby, Go, AWS, Monitoring, Scaling

- Spearheaded the design and development of a next-gen checkout web application, contributing to the growth of a $2B+ revenue stream by ensuring seamless integration and future-proofing for adaptability.
- Revamped Amazon's Trade-in program, implementing a rebate strategy that significantly increased customer upgrade rates by allowing promotional usage prior to device receipt.
- Led a high-impact team responsible for maintaining a multi-billion-dollar revenue stream, achieving operational excellence through the development of API metrics monitoring and best practices for system health.
- Orchestrated the migration of a critical customer issue triage tool from legacy systems to AWS-native solutions, resulting in substantial cost and time savings and providing a template for similar migrations across the organization.
- Enhanced customer satisfaction and reduced failed charges by developing a solution that minimizes unnecessary notifications, effectively communicating failure reasons and potential resolutions to customers.

Capital One – Richmond, VA   May 2019 – Aug 2019
Software Engineer Intern
Technologies: Python, NLP, TypeScript, Angular, AWS Lambda

- Integrated a Slack feedback component into the Capital Markets Team application, leading to improved team communication and efficiency, and successfully deployed it to production.
- Designed and implemented an NLP-driven program to automate the extraction of scheduling information from large, unstructured texts, streamlining operations.
- Collaborated within an Agile development team to deliver several critical components of an Angular application.

Center for AIDS Research – Chapel Hill, NC   May 2018 – Feb 2019
Data Analyst / Statistical Software Engineer
Technologies: C/C++, R, Python, SAS, Various Statistical Methods

- Developed and optimized a multi-threaded R package for pinpointing latent cells, a crucial step in the pursuit of an HIV cure.
- Provided comprehensive data analysis support for AIDS researchers, contributing to the advancement of cure development studies.

Education

University of North Carolina at Chapel Hill, NC **|** B.S. Biostatistics and B.A. Computer Science **|** May 2020