Arun Atchuthananthan

Incoming Software Development Engineer intern, Amazon Web Services (AWS)

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EDUCATION

University of Waterloo   Waterloo, ON
Bachelor of Computer Science | Artificial Intelligence Specialization   Expected June 2026
- **94.79%** Cumulative GPA - Academic Distinction
- Courses: Data Structures & Data Management, Algorithms, Intro to Machine Learning, Numerical Computation, Statistics

TECHNICAL SKILLS

Languages: Python, C++, C, Java, Kotlin, Swift, Javascript, Typescript, HTML/CSS, C#, Scala, Git, SQL, R

Tools: React, Next.js, Angular.js, Tailwind, Bootstrap, Flask, Spring, MongoDB, PostgreSQL, Firebase, Linux

WORK EXPERIENCE

Engineering Intern, X (Twitter)   January 2025 - Present
- Implemented timeline feature upgrades using latest Kotlin frameworks for X Android app with 300+ million monthly users
- Built lightweight Lists feature with Kotlin and GraphQL, enabling users to create, follow, pin, and share custom timelines
- Expanded group chat system messages and KMP-based UI logic, driving key changes in the ongoing DM enhancements
- Added unit and screenshot tests and refactored data classes across 30+ modules to increase code maintainability and reuse

Software Engineering Intern, RouteThis   May - August 2024
- Implemented mobile upgrades on the Certify app for network technician users; Led mobile user experience redesign
- Published framework changes to stabilize wifi measurements with 98% accuracy and detect roaming events from data
- Reduced storage size by 50% in AWS DynamoDB and S3 databases by collecting, restructuring, and parsing network data
- Facilitated development for Kotlin path tracing prototype with sensor fusion to mitigate sensor inaccuracies and user error
- Validated 3 iOS and Android releases; Monitored user adoption analytics in targeted cohorts using PostHog feature flags

Android Developer, Innovapost (acquired by Deloitte)   September - December 2023
- Implemented QR scanning and accessibility features for Canada Post Android application with over 1 million downloads
- Researched and facilitated Kotlin code migration to use KSP processing tool - reducing development build times by 50%
- Developed new menu layout and navigation, noted by 50+ 5 star ratings in the week after release on the Google Play Store
- Spearheaded a code standardization and refinement remove costly licensed resources from the code base, saving $10,000+

Software Developer, Infor   January - April 2023
- Created a new Kotlin logging system to monitor and interpret internal service data in the Workforce Management app
- Optimized codebase by refactoring data logging and upgrading Java features to Kotlin, reducing execution times by 70%
- Developed Spring Boot aspect-oriented blacklist privacy system to monitor 5 active services and filter for sensitive data
- Constructed 100+ unit tests to validate proof-of-concept functionality based on data extracted from PostgreSQL databases

Software Quality Assurance Engineer, AlertDriving   May - August 2022
- Collaborated with both Development & QA teams to enable TDD for new Javascript features in user-facing web app
- Validated backend optimizations to improve processing speeds by 30% for batch updates of 10,000+ concurrent users
- Optimized cron job scheduling and fixed PHP email scripts, preventing 5000+ overlapping client emails sent per month
- Analyzed GitFlow and Agile SDLCs in 20 page report detailing the company's development maintainability and efficacy

PROJECT EXPERIENCE

Rate-It | Sentiment Analysis Interface | *Python, Flask, Javascript, HTML/CSS*   February 2024
- Programmed Python and Flask backend to categorize text sentiment through a Javascript web app hosted on Streamlit
- Integrated Python libraries to analyze emotions and score further parameters including message polarity and subjectivity
- Leveraged file text processing to augment input choices with text and csv files; Integrating social media posts via links

Lyrify | Spotify Web App | *Javascript, React, HTML/CSS, Bootstrap*   August 2023
- Developed music lyric generation and search on Spotify API playback with Javascript and React before adopted natively
- Implemented user-friendly authentication to connect to existing client social accounts and allow customization of web UI