Nishanthan Ravichandran

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SUMMARY

Passionate Software Engineer, expertise in designing, developing mobile and web applications. Optimized Sears' SYW payment gateway, serving 80 Million+ USA users using AWS WebSocket. Demonstrated proficiency in full-stack development, data science, cloud computing, mobile applications, and AI technologies, with a proven track record of delivering impactful, scalable solutions in Agile environments. Recognized with exceptional ratings at both **Sears** and **Ingenico** for outstanding achievements.

TECHNICAL SKILLS

Programming: C++, Java, Python, Kotlin, C, C#, SQL, Shell Scripting
DevOps/Cloud: AWS, GCP, Azure, Docker, Bitbucket, Git, GitHub, Bamboo, CI/CD, Jenkins, Kubernetes
Database: MySQL, PostgreSQL, MongoDB, Firebase, SQL Server Management Studio
Software Methodologies: Scrum, Agile, Waterfall, Lean Six Sigma, SDLC, Object-oriented Design
Tools: Android Studio, JUnit, XUnit, Mockito, VS Code, Eclipse, Linux, Maven, Gradle, Postman, JIRA

PROFESSIONAL EXPERIENCE

Ingenico Canada, Toronto, Canada: Android Developer   Sept 2024 – Dec 2024

- Collaborated with cross-functional teams in **SAFe Agile** environment and built **APIs, headless services** for primary payment app using **Kotlin**, contributing to a 60% increase in retail system integration.
- Developed **AIDL interfaces** and streamlined **serialization** workflows by integrating shared data model which improved system compatibility, enhanced adapter systems, and enabled faster deployment cycles.
- Led dependency and version management using JFrog Artifactory, ensured seamless Jenkins deployment by code reviews and integration processes via Bitbucket, leveraging **Test-Driven Development (TDD).**
- Enhanced code coverage and app's robustness by writing JUnit test cases, performed regression testing and boosted workflow efficiency by 20%, standardized software documentation with Confluence templates.

Sears Holdings Corporation, Pune, India: Software Developer   June 2022 – June 2023

- Developed **50+ RESTful APIs** and implemented **JSON**-based event-driven mechanisms using **Java** to optimize data flow and reduce response times in **microservices** applications.
- Deployed **containerized microservices** with **Docker** and **Kubernetes**, enhancing scalability and streamlined deployment across environments.
- Enhanced Sears' payment gateway by building **AWS WebSocket API**, and temporarily stored payment status in **Redis** to schedule periodic payment status checks using **dequeue listener**
- Achieved a **60% reduction** in client **polling** by enabling full-duplex communication with WebSocket, **minimizing** server **load** and reduced unnecessary requests and log generation
- Developed unit tests using **JUnit** with **Mockito** to mock external service dependencies, achieving over 90% code coverage and enabling isolated testing for faster execution, ensuring consistent updates in an **Agile** setup.
- Automated security processes by **scripting** token generation for **API**, managed batch jobs on **UNIX** servers using Shell scripting. Recognized by **Principal Architect** and **Business Unit Head** for exceptional contributions

Allsoft Solutions, Mohali, India: Android Developer   June 2021 – Aug 2021

- Led the **complete** software development **lifecycle** of an Android media player using **Java, Kotlin** managing builds with **Gradle** and overseeing a team of 4.
- Earned best project recognition for amazing **XML-based UI** optimized for smooth playback and intuitive navigation of **500+ files.**
- Utilized Google Cloud Platform (**GCP**) to deploy **backend services** for the Android app, enhancing **scalability** and **optimizing** media data retrieval for smooth playback of 500+ files.

PROJECTS

Brainy Bits AI   Github

Skills: Flask | Python | OpenCV | TensorFlow | Keras | AWS RDS | MySQL | Image Processing

- Built an **AI application** to monitor classroom activities, capturing students' head poses, emotions, and eye movements **real-time data** from classroom **sensors**, with **97% accuracy**, generating detailed attentiveness reports.

- Created robust **technical documentatio**n, outlining data handling protocols and standards for ease of integration.
- Utilized **Flask** web framework, **OpenCV** for image processing, **TensorFlow**/**Keras** for model development, **MySQL** hosted in **AWS RDS** for efficient data storage, implementing optimized queries and indexing for faster data retrieval and analysis.

RCube Green Ecom Github

Skills: Django | Python | HTML | CSS | JavaScript | SQLite 3 | GitHub | Git | Agile | UI/UX | Google API
- Developed POC cum dynamic ecommerce and blog platform for eco-conscious users integrating **Google Sign-In** authentication, **APIs**
- Followed software engineering best practices, including **Agile methodologies**, rigorous **code reviews**, and coding **standards**, contributing to **higher code quality** and **operational excellence**.
- Designed **intuitive UI** with **Django forms**, **views**, and models, ensuring smooth user experience, efficient database management, robust functionality

UNIX Shell+ Github

Skills: C | Networking | System programming | Unix/Linux | Sockets | Load Balancing | Bash Scripting | IoT Protocols
- Built a **client-server application** with **load balancing**, dynamically redistributing client connections using multithreading, handled memory management to optimize resource usage when **server load exceeds 70%**
- Designed data processing protocols using FTP and HTTP, optimizing data transmission efficiency by 35%.

Analysis of Weather data Github

Skills: Hadoop HDFS | Python Dash | Random Forest | Algorithms | Hive | NLP | XGBoost | HTML5 | CSS3 | JavaScript
- Built a **machine learning pipeline** using **Hadoop** and **Random Forest algorithms** to predict suitable crops with **96.59%** accuracy based on weather and nutritional data.
- Designed an interactive dashboard using **Python Dash** for visual insights to aid farmers in pre-harvest planning.

Reverb Media Player Github

Skills: Proficient in Android Application Development | XML | Java | Strong presentation skills
- Developed an android application capable of managing both internal audio and video data using **Java, XML**, providing users with an engaging user interface. Integrated **Chromecast** functionality and with various **gestures**

n2n Movies Website | Github

Skills: Front end web development HTML | CSS | Javascript and JSON and Animations to enhance UI
- Developed an online movie ticket booking system with a user-friendly interface to streamline the booking process. Focused on front-end development to create an attractive UI and design for enhanced user experience.

PUBLICATIONS

- Document reader, summarizer, Built on GPT-4o published in ChatGPT store, ChatGPT

- WebSocket technology AWS WebSocket API and SockJS Library, LinkedIn

- An Empirical Study on Architecture and Efficiency of Dalvik VM and Android Runtime (ART), IJRASET

EDUCATION

Master of Applied Computing Sept 2023 - Dec 2024

University of Windsor, Windsor, ON 3.7/4

Bachelor of Technology (Computer Science and Engineering) July 2019 - June 2023

Lovely Professional University, India 3.6/4

CERTIFICATIONS

- C#: from Beginner to Advanced, LinkedIn

- Python and Django Full Stack Web Developer Bootcamp, Udemy

- AWS Certified Cloud Practitioner (CLF-C02) Cert Prep: 1 Cloud Concepts, LinkedIn

- The Complete Android 14 & Kotlin Development Masterclass, Udemy

- Java from Zero to Advanced, Udemy