

# NISHANTHAN RAVICHANDRAN

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## SUMMARY

- Passionate Software Developer, developed tier 1 payment **microservices** using **Java, React, Spring Boot** and **AWS WebSocket**, powering Sears' checkout platform serving over **80 million USA users**. ([Link](#)) enhancing transaction speed by **20%**.
- Built an **AI-powered chatbot** for Sears using **Python and TensorFlow**, improving customer query resolution accuracy and deployed the model to enhance the Natural Language Understanding capabilities.
- Built **load-balancing client-server application** in C and Linux, reducing server downtime by 40%, supporting multiple clients, also developed Flask-based AI application with **OpenCV, Keras, PyTorch achieving 97% accuracy** in monitoring classroom activities.

## TECHNICAL SKILLS

<b>Languages</b>	: Java, Python, C#, C, C++, JavaScript, TypeScript, SQL, Shell/Bash Scripting, HTML5, CSS3
<b>Machine Learning &amp; AI Frameworks</b>	: TensorFlow, Keras, PyTorch, scikit-learn
<b>Frameworks</b>	: Spring, Spring Boot, Hibernate, React.js, Node, Flask, django
<b>Database Systems &amp; Management</b>	: MySQL, MongoDB, PostgreSQL, Amazon RDS, Firebase
<b>Testing</b>	: JUnit, Mockito, Postman, Selenium, Quality Assurance (QA)
<b>DevOps/Cloud</b>	: Docker, AWS, CI/CD, Kubernetes, Azure, Jenkins, GitHub, Gradle, Maven
<b>Others</b>	: Business Documentation, REST, WebSocket, Git, Linux, Agile/Scrum, OOPs, Product design




## EDUCATION

<b>University of Windsor</b> <i>Master of Applied Computing</i>	Sep. 2023 - Dec. 2024 GPA: 84/100
<b>Lovely Professional University</b> <i>Bachelor of Technology in Computer Science &amp; Engineering</i>	Jul. 2019 - Jun. 2023 GPA: 80/100

## PROFESSIONAL EXPERIENCE

<b>Sears Holdings Corporation</b> <i>Software Developer Intern   Java, Spring Boot, AWS, JUnit, REST, WebSocket, Spring Tool Suite, Redis, PuTTY</i>	Jun. 2022 – Jun. 2023 Pune, India
<ul style="list-style-type: none"><li>• Contributed to <b>various Micro Services applications</b> like Checkout, Payment, Subscription web apps by <b>developing APIs, writing SQL queries, and JUnit test cases</b> to ensure the flow</li><li>• Implemented <b>system tests, acceptance tests</b> to ensure seamless <b>integration and migration</b> of services and drove improvements in server performance, achieving a <b>98% speed</b> increase over HTTP.</li><li>• Collaborated with cross-functional teams, including product managers and visual designers, to deliver <b>50+ RESTful APIs and 30 JSON event offers</b>, streamlining business operations and improving user experience.</li><li>• Recognized by <b>Senior Principal Architect</b> and <b>Business Unit Head</b> for <b>exceptional</b> internship contributions. (<a href="#">Link</a>)</li></ul>	
<b>Allsoft Solutions</b> <i>Android Developer Intern   Java, Kotlin, XML, Firebase firestore, Android studio, Figma, Mobile app development</i>	Jun. 2021 – Jul. 2021 Mohali, India
<ul style="list-style-type: none"><li>• Managed the end-to-end development lifecycle of an Android media player application using Java, Android Studio leveraging <b>Gradle for build management</b>.</li><li>• Conducted user acceptance testing (UAT) for new features in the Android media player application, ensuring stability and usability across <b>Android versions 5.0 (Lollipop) to Android 10 (Android Q)</b>.</li></ul>	

## PROJECTS

<b>BrainyBits AI</b>    <i>Flask, Python, OpenCV, TensorFlow, Keras, Image Processing, Golang</i>	<ul style="list-style-type: none"><li>• Developed an AI application to monitor classroom activities, capturing <b>students' head poses, emotions, and eye movements</b>, generated report on the attentiveness and <b>achieved 97% accuracy</b> in capturing student behaviours.</li><li>• Leveraged Flask for the web framework, OpenCV for image processing, and TensorFlow and Keras for building and understanding the model, utilizing a C++ library for optimized performance.</li></ul>
<b>RCube Green ECom</b>    <i>django, Python, HTML, CSS, JavaScript, SQLite 3, GitHub, Git, Authentication, UI/UX, API</i>	<ul style="list-style-type: none"><li>• Created <b>dynamic ecommerce</b> and <b>blog</b> platform using <b>Django</b> and <b>Python</b>, integrated <b>Google SignIn</b> for <b>authentication</b>.</li><li>• Utilized <b>Django forms, views, and models</b> for comprehensive functionality, efficiently managing user accounts, posts, Integrated <b>APIs</b> to display the latest green technology news, making the platform a one-stop destination for eco-conscious users</li><li>• Designed an intuitive <b>UI</b> for an excellent <b>user experience (UX)</b>, ensuring <b>data integrity</b> and efficient <b>database management</b>.</li></ul>
<b>UNIX Shell +</b>    <i>C, Linux, System programming, Unix, Sockets, Load Balancing, Bash Scripting</i>	<ul style="list-style-type: none"><li>• Created client server application <b>supporting load balancing functionality</b> to efficiently distribute client connections across main server and 2 mirror servers.</li></ul>

- Implemented a dynamic threshold mechanism and **redirected client connections to mirror servers** when main server **load exceeds 70%**, minimizing server downtime and optimizes resources.
- Integrated support for piping, redirection, and conditional execution, enhancing the functionality and user experience of the UNIX shell to **handle advanced commands**.

**Nourish Nation**  | *Hadoop HDFS, Python Dash, Random Forest, Algorithms, Hive, NLP, XGBoost, HTML5, CSS3, JavaScript*

- Developed a framework integrating **100 years of weather and nutritional data**, suggested crops for pregnant women and the malnourished with **96.59% accuracy using Random Forest ML algorithm**.
- Participated in maintaining and updating demo environments, ensuring optimal functionality for sales and demonstration purposes and won **second prize in the Demo day of UWindsor**.
- Designed and implemented **responsive web pages using HTML5, CSS3, and JavaScript**, improving user engagement by 20%.

## TECHNICAL INVOLVEMENT

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- Conducted an **empirical study on Architecture and Efficiency of Dalvik VM and Android Runtime**, published in the International Journal of Research in Advanced Science and Engineering Technology ([IJRASET](#)) and wrote an article **WebSocket Technology: AWS WebSocket API and SockJS Library** on ([LinkedIn Article](#)).
- Runner up of **Flipkart Grid Hackathon 2021**, Actively solved 80 problems on LeetCode, continuing **daily contributions**, and authored **technical documentation for API workflows** during internship.