SAHIL RAJPAL

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TECHNICAL SKILLS

Programming & Scripting Languages: C++, Java, Python, C, JavaScript, SQL, HTML, Kotlin
Web Development: HTML, CSS, JavaScript, React.js, Redux, Angular.js, jQuery, Bootstrap, Material-UI, Node.js, Express.js, RESTful API, DOM, JSON, Flask, FastAPI
Database Technologies: SQL, MySQL, MongoDB, PostgreSQL, NoSQL
Cloud Services: AWS (Lambda, S3, EC2, IAM, OpenSearch, CloudWatch, CloudFormation), GCP
DevOps & Tools: Docker, Git, GitHub, Heroku, Postman, Mailchimp, Confluence, Jira, Version Control, Linux, Windows, CI/CD
Computer Science Concepts: Object-Oriented Programming, DBMS, Operating System, Virtual Memory, Cache Memory, Encryption, Decryption, Artificial Intelligence, Machine Learning, Agile Methodology, Full-Stack, Networking, Cloud technologies, Prototypes, SDLC

WORK EXPERIENCE

University of Ottawa|CSM LAB   Ottawa, Canada
Software Developer (Java, Javascript)   *May 2024 – Dec 2024*
- Developed features and debugged in **Java** and **JavaScript**, reducing runtime errors by 30% and improving application stability.
- Unified Symboleo 2SC and PC codebases, reducing duplication by 40% and enhancing modularity and maintainability.
- Integrated **LLMs** for contract error classification and updated the **Symboleo website**, boosting analysis efficiency by 50% and improving site responsiveness by 30%.
- Leveraged **GitPod**, **Eclipse**, and **Git** to streamline development workflows, accelerating onboarding by 35% and reducing deployment time by 25%.

University of Ottawa   Ottawa, Canada
Teaching Assistant (Android Development, Programming Paradigms)   *Sept 2024 – Apr 2025*
- Mentored students in **Android development (Java, Kotlin, UI/UX)** and **Programming Paradigms (OOP, functional programming, logic programming)** through lectures, lab sessions, and hands-on support.
- Assisted with grading assignments and providing feedback, enhancing student understanding and coding practices in both **Android development** and **Programming Paradigms**.

Stackera Pvt. Ltd.   Pune, India
Software Developer Intern (Python,Blockchain)   *Jan 2023 – June 2023*
- Developed **Python and Flask projects**, integrating with databases and APIs, enhancing functionality and reliability by 50%.
- Developed a secure **blockchain wallet** with transaction authorization and optimized databases by 20%.

EDUCATION

University of Ottawa   Onatrio, Canada
Master of Computer Science (Co-op) - Grade A+   *Sep 2023 - June 2025*
Vishwakarma Institute of Information Technology   Pune, India
Bachelor of Technology, Computer Science - CGPA - 9.47/10   *Aug 2019 - May 2023*

PROJECTS

SymboleoGPT | *Java, Python, ChatGPT-4.0 API, Eclipse, CSV, LLM* | *Source Code*
- Built an end-to-end automated system that generates and refines Symboleo contracts using **ChatGPT-4.0**, requiring only a single button click in the **Eclipse** IDE.
- Developed a **Java** module to extract compiler errors, which are parsed and forwarded to a **Python** engine that crafts hybrid prompts and interacts with the LLM for iterative improvements.
- Integrated a second one-click feature to auto-generate detailed **CSV** reports for statistical analysis, summarizing error types, frequencies, and line numbers.

Chatty | *MERN Stack, Socket.io, JWT, Zustand, TailwindCSS, DaisyUI* | *Live Project*
- Built a real-time messaging app with **Socket.io** for instant communication and user presence tracking, secured using JWT-based authentication and role-based access control.
- Integrated **Zustand** for efficient global state management and designed a fully responsive UI using **TailwindCSS** and **DaisyUI**.