Sujith Kumar Kumaravel

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TECHNICAL SKILLS

Programming:Python, Java, JavaScript, HTML, CSS, CDeveloper Tools:Git, Google Cloud Platform, VS Code, Postman

Frameworks: Node.js, React, Express, TensorFlow, PyTorch, Angular 16, Spring Boot

Technologies: Natural Language Processing, JSP, Servlets

Database: Microsoft SQL Server, SQLite, MySQL, PostgreSQL, MongoDB

Cloud: Microsoft Azure, Cloud Application Integration

Competencies: REST API, Data Warehousing, Data Pre-processing, Data Decryption and Encryption, Data Modelling,

Data Archiving, Data Analysis, Model Deployment, Automation Testing, Docker

EXPERIENCE

Full-Stack Developer Intern, Kaardeep Engineering, Chennai, India

April 2023 – February 2024

- Implemented and maintained robust full-stack solutions, resulting in a 25% improvement in overall system efficiency.
- Collaborated with a dynamic team to design and develop innovative features, enhancing the functionality and user experience of web applications.
- Utilized NodeJS, ReactJS, Oracle, Figma, Google API, Zoho API to create scalable and responsive applications, meeting project requirements and deadlines.

SOFTWARE DEVELOPER INTERN at Exposys Datalabs, Bangalore, India

September 2022 – Nov 2022

- Developed a high-performance web application for Attendance Management System using **Spring Boot** and **Angular 7**, incorporating hibernate as a **lightweight ORM tool** to optimize Java application's interaction with the database.
- Utilized **lazy loading** techniques to load data dynamically and **asynchronously**, minimizing initial loading times and improving the user experience by fetching only the necessary information on-demand.
- Implemented **asynchronous** processing techniques, such as task **queues/message queues**, for **time-consuming** operations, freeing up **server resources** and improving the responsiveness of the web application.

ACADEMIC PROJECTS

HTTP Desync Attack: Detection and prevention | Python, Docker, WAF | Project link

February 2023 – May 2023

- Designed and programmed "DESYNCRON," a robust tool in **Python 3.X** for evaluating website vulnerability.
- "DESYNCRON" serves as a proactive assessment tool to detect potential security weaknesses.
- Conducts valid assessments on websites, identifying and addressing **request smuggling** and desynchronization vulnerabilities.
- Delivers actionable insights to fortify web application security, ensuring the safeguarding of data integrity and overall resilience

Warzone Game | Java, Design Patterns (MVC, Observer, State), Junit | Project link

September 2023 – Dec 2023

- Developed and implemented complex decision-making algorithms for different game modes, honing skills crucial for predictive modeling in data science.
- Authored and executed comprehensive **JUnit test cases**, ensuring robust and reliable software functionality, a practice parallel to data validation in data science.
- Applied MVC, State, Strategy, and Adapter design patterns, demonstrating my proficiency in using architectural patterns to solve complex problems, a valuable skill in data science projects.

Open Tracks | Android Studio, Java, UI design, Kotlin | Project link

Jan 2024 – May 2024

- Developed a UI Toggle Feature: Crafted a user-friendly toggle in **Android Studio** for controlling workout stats visibility, focusing on **intuitive design** and aesthetics.
- Backend Integration for Elevation Gain: Implemented advanced backend programming for dynamic handling of the Elevation Gain statistic in the Aggregated Stats.

SAPDrive | Angular 13, Python3, JavaScript, HTML | Project Link

Jan 2024 – April 2024

- Built in 24 hours during ConUHacks VIII, leading to victory in the SAP Challenge and securing a \$750 cash prize.
- Developed a specialized scheduling algorithm for tire changing shops, managing 10 bays with distinct allocation rules: 5 for walkins and 5 for pre-bookings, optimizing revenue generation.
- Utilized **Flask** with **Python** for backend, and **Angular 13** for frontend to create SAPDrive, optimizing scheduling, operations, and revenue generation.
- Collaborated on integrating the **algorithm** seamlessly into SAPDrive's UI for a user-friendly experience.

VOLUNTEER WORK

Director May 2024 – Present

Graduate Students Association, Concordia University, Montreal

• Collaborated with **Executives** to execute key duties, while proactively identifying and implementing initiatives to enhance the overall well-being and academic experience of Graduate Students Association at Concordia University.

Vice President Crescent Coding Club, Chennai, India

July 2022 - May 2023

- Organized and Led Weekly Coding Competitions: Led and orchestrated weekly coding competitions, creating an environment for continuous learning and healthy competition among members, ultimately enhancing their programming acumen.
- Facilitated Data Structure Mastery Workshops: Conducted one-day workshops on key data structure topics, empowering undergraduates to deepen their grasp of core computer science principles and enhance technical proficiency.

AWARDS AND RECOGNITION

- Winner of the SAP Sponsored Challenge at ConUHacks VIII:
- Secured victory at the **ConUHacks hackathon**, winning the **SAP Challenge**, and earning a \$750 cash prize. Led a team to develop an optimized scheduling algorithm, demonstrating innovation and expertise in tech solution.

EDUCATION

Master of Applied Computer Science Concordia University September 2023 – April 2025 (Expected)

Montreal, Canada