Gaurav K Gupta
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EDUCATION

Youngstown State University Youngstown, OH
College of Science, Technology, Engineering, and Mathematics (STEM)
Bachelor's in **Computer Science and Mathematics** Aug 2018-May 2022

WORK EXPERIENCE

Software Engineering at Lake County Health Department July 2022- Present

- API & Integration: Spearheaded the development and maintenance of robust API integrations, utilizing standards like HL7 and FHIR. Regularly collaborated with cross-functional teams to ensure seamless data exchange between in-house applications and external systems using REST APIs.
- Data Management: Employed advanced MS SQL techniques, including stored procedures and complex queries, to manage, analyze, and ensure data integrity. Successfully orchestrated data migrations across different platforms, ensuring consistency and accuracy.
- Development: Led the creation and maintenance of diverse in-house applications leveraging C#, Java, Python, and JavaScript, ensuring scalability and performance optimization.
- Docker & Deployment: Orchestrated containerized application development using Docker, streamlining deployment processes, and bolstering application reliability in various environments.
- Machine Learning in Healthcare: Pioneered machine learning initiatives for healthcare data, implementing algorithms that enhance predictive accuracy. Utilized vision learning techniques to analyze medical images, significantly improving diagnostic accuracy and patient outcomes.

Computer Science Intern at Plan4Co March 2021-Sep 2021

- Assist the Plan4Co teams in developing an innovative App. It consist features for predictive analytics, artificial intelligence (AI), Machine Learning and process automation in every industry. Lead the team for the client and consulting project.

Software Developer at Computer Science Department (YSU) Jan 2022- May 2022

- Research and Development Software Specialist

PROJECT

Machine Learning & Advanced Systems:

- Large Language Model Application: (Hypothetical) Designed and implemented a chatbot system leveraging advanced large language models, integrating real-time responses into a web application, and providing user analytics.
- Undergrad Research: Conducted empirical assessment techniques to address missing values in time series data, employing datasets and the SoftImpute Algorithm.
- Software Engineering Project: Developed an intelligent recommender system for stock analysis and trading using Machine Learning.

System Development & Integration:

- Operating System Project: Implemented a program for file transfers into and out of a VirtualBox VDI, specifically with a Linux ext2 filesystem.
- Prompt Engineering Project: Designed and developed an engineering application that provides real-time prompts for field engineers, integrating responsive design, live data feeds, and advanced user interaction capabilities.

Application & Web Development:

- Shopping Platform: Developed a responsive e-commerce platform utilizing a microservices architecture with Spring Boot and Angular. Integrated GraphQL for optimized data querying and leveraged cloud-based database solutions on AWS for scalable storage. Incorporated progressive web app (PWA) features to ensure seamless offline user experience and implemented modern UX/UI practices. Deployed and orchestrated the platform's microservices using Docker to ensure consistent and scalable environments across development and production.
- RESTful API Development: Crafted a robust API system serving a user-based application, ensuring efficient data exchange, authentication, and integration with multiple external systems.
- Salesforce LWC Project: Led the development of a dynamic web component for Salesforce, integrating frontend (JavaScript, HTML, CSS) and backend operations (Salesforce's Apex).

Algorithm Implementation:

- Pathfinding in C: Developed an efficient algorithm to find the shortest path between two nodes in a weighted graph using Dijkstra's technique.

COURSEWORK & COMPUTER SKILLS

- Programing: Java, Python, JavaScript, TypeScript, C++, C, C#.Net, R, SQL
- Framework and API: AWS, Flutter, Angular, Spring Boot, Django, PostgreSQL, Express, jQuery, MongoDB, MariaDB, HL7, FHIR, Rest API, Kubernetes, GraphQL
- Libraries: React, Vue, Pandas, NumPy, TensorFlow, Torch, Torch lightning
- Coursework: Data Structure and Algorithm, Operating System, Automata Theory, Discrete Structure, Introduction to Machine Learning, Development of Database, Server-Side Web Development Programming, Data Structure and Objects, Security Design, Undergrad Research, Computer Projects, Artificial Intelligence in Game Design, Advanced Database, Cloud Computing.

- Tools: Git/GitHub, Jenkins (Version Control & CI/CD), Docker, Power BI, Tableau, Visual Studio, PyCharm, Terminal, Sublime Text, Unity, Virtual Machine, Oracle SQL Developer, MS Office Suite, Adobe Suite (Premier, Photoshop).
- Operating Systems: Windows, (7-10), Ubuntu, Linux, Mac.

HONORS & ACTIVITIES

- YSU Penguins Hacker
- I pals
- Foundation Scholar Award
- Rotary Club
- YSU International Scholar Award
- Dean’s and President’s list Award