KARTIK CHAUDHARI

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EDUCATION

McMaster University   Hamilton, ON
B.Eng in Software Engineering with Co-op   *Sep. 2020 – May 2025*
- GPA: 3.7
- Relevant Coursework: Data Structures and Algorithms, Databases, Concurrent Programming, Software Design
- Key Achievements: Best Engineering Award, International Student Award, Dean's Honour List, Winner of several Hackathons, Vice President of Software Club, Teaching Assistant for AI, Engineering Ambassador

EXPERIENCE

Software Developer Intern   May 2023 – Present
Tucows   *Toronto, Ontario*
- Designed and developed real-time data streaming pipelines in Python and Java, leveraging Kafka to process over 100,000 events per second, optimizing data flow for enhanced system responsiveness
- Containerized applications using Docker, curtailing deployment time by 40%, ensuring uniform environments, and facilitating smooth cross-functional collaboration between development and production teams
- Utilized SQL for efficient data management, enabling seamless storage, retrieval, analysis within the pipeline and orchestrated application deployment with Nomad - sustaining a good uptime and better resource utilization

Artificial Intelligence Research Assistant   Jan. 2022 – May 2022
McMaster University   *Hamilton, Ontario*
- Collaborated with AI developers to implement enhancements to a natural language processing (NLP) model, contributing to a 25% improvement in customer support response time using Pytorch and Tensorflow
- Led a cross-functional team of 5 engineers to create a recommendation system using collaborative filtering, resulting in a 40% increase in user engagement for self-driven car softwares
- Assisted in fine-tuning the architecture of a deep learning model dedicated to automotive image recognition, yielding a significant 15% enhancement in accuracy and contributing to the deployment of an AI-powered diagnostic tool

Software Engineering Intern   May 2021 – Aug 2021
TFS   *Doha, Qatar*
- Led the enhancement of features within a comprehensive full stack application using FastAPI, JavaScript, and SQL achieving a higher audience retention rate and optimizing user experience along with system performance
- Collaborated with a dynamic development team to construct resilient RESTful APIs utilizing FastAPI, while leveraging React and Vuejs for dynamic front-end interactions and Mongodb for efficient data management
- Collaborated closely with UI/UX designers, effectively bridging the gap between design and functionality, ensuring a seamless and visually appealing user experience, boosting my communication skills and problem solving abilities

PROJECTS

AI-Enhanced Driving Simulator: | *Python, React, Tensorflow, OpenCV*   Jan 2023 – May 2023
- Developed an AI-driven driving simulator employing computer vision and reinforcement learning
- Leveraged Unity3D for realistic environment modeling, TensorFlow for neural network integration, and OpenCV for real-time data processing
- Analyzed real-time video inputs to provide personalized feedback on driving techniques, enhancing learners' skills

Car Pool - Taxi | *React, Node.js, MongoDB, Docker, Git*   Sep 2022 – Dec 2022
- Created a responsive and engaging user interface using React, enabling seamless ride booking, real-time updates, interactive maps for tracking and worked with MongoDB for saving data
- Employed Node.js for the back end, facilitating smooth data management and communication between passengers, drivers, the server and managing the codebase using Git
- Utilized WebSocket for instant notifications and Google Maps API for interactive maps, enhancing the user experience with live ride tracking and communication

TECHNICAL SKILLS

Languages: Java, Python, SQL, JavaScript, HTML/CSS, R, Matlab, Golang
Frameworks: React, Node.js, Flask, Vuejs, FastAPI
Developer Tools: Git, Docker, Kafka, Nomad, Linux