Reva Chauhan

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PROFESSIONAL SUMMARY

Solutions-oriented AI Engineer with growing experience in computer vision, machine learning, and hardware integration. Skilled in developing real-time tracking systems, optimizing drone stabilization, and deploying AI models using TensorFlow and PyTorch. Experienced in web development, data analysis, and blockchain solutions, with a proven ability to blend software and hardware for systems.

EMPLOYMENT HISTORY

Junior Al Engineer, Johnnette Technologies

Aug 2024 - Jan 2025

• Real-Time Object Detection and Tracking:

Created and implemented real-time object detection and tracking systems. Using computer vision models like YOLO and DeepSORT, combining Kalman filters with ORB keypoint detection to improve precision in dynamic scenarios.

• Model Predictive Control, optimized stabilization:

Designed and optimized a Model Predictive Control (MPC) algorithm to outperform traditional PID controllers in drone stabilization.

• Hardware Development and Integration:

Gaining hands-on experience with drone structures, Ground Control Systems (GCS), Raspberry Pi, and GPIO pins, learning to assemble and configure hardware components while ensuring seamless interaction with software systems.

Automation engineer intern (DataPod), Ankit Malik

May 2023 - June 2023

Cryptocurrency Market Automation Tool:

Built an automated tool for cryptocurrency market analysis using Python and Selenium, reducing manual data extraction and providing real-time price and trend updates.

UI/UX web developer and designer internship, Heads up for Tails

June 2022 - Aug 2022

• Responsive Website Development:

Designed and developed responsive websites from scratch, starting with sketches and wireframes in Figma and implementing them using Flutter, HTML, CSS, and JavaScript.

Remote internship in data analysis, Deutsche Bank

Oct 2022 - Dec 2022

• SQL Database Automation and Analysis:

Automated SQL database operations to log and query transactional data efficiently. Analyzed user transaction patterns to optimize front-end interfaces and improve system usability.

EDUCATION

ASHOKA UNIVERSITY

Bachelor of Science (Honors) in Computer Science.

Aug 2021 - March 2024

Key Projects:

MPC vs PID testing:

Designed and optimized a project connecting with MAVLink to compare MPC and PID methods for optimized flight control.

Real-Time Object Detection and Tracking:

Created a real-time object detection and tracking system using YOLO, DeepSORT, Kalman filters, and ORB keypoint detection.

Hashing and web scraping:

Built an automated tool using selenium for a web scraper that creates and redirects cryptocurrency wallets, incorporating cryptographic hashing for enhanced security

Blockchain and Cryptocurrencies:

Developed a secure patient-doctor privacy information management system using Hyperledger Fabric for blockchain integration and cryptocurrencies for secure transactions. Designed and implemented front-end connections as well.

Biotech research Project:

Implemented R and Python for a tracking algorithm regarding the population genetics of genetic disorders and the demographic processes that have shaped human populations.

Restaurant Management System:

Created a system that keeps track of customer/admin users, edits bills/menu pricing, and allows alterations following the same.

Valentine Fullstack development project:

Developed processes including automating GitHub accounts for code layers, designs using Figma, and converting designs to code.

Personal website:

Developed a responsive personal website using HTML, CSS, JavaScript, and animations.

Positions held:

- Teaching Assistant of "Design and Analysis of Algorithms" to Professor Anirban Sen & "Introduction to Computer Programming", to Professor Debayan Gupta.
- Head of the technical team, Women in Computer Science. Head of club & technical team, Animal Welfare.

SKILLS & INTERESTS

Technical: Machine Learning (TensorFlow, PyTorch), Object detection & tracking (YOLO, DeepSORT, Kalman filters, ORB), Model Predictive Control (MPC), Computer Vision, Drone & Hardware Integration (Raspberry Pi, GCS), Web Development (HTML, CSS, JavaScript, Flutter), Blockchain (Hyperledger Fabric), Data Analysis (SQL, Python, R), Full-stack development, UI/UX Design (Figma, Adobe XD).

Re-creational: Certified aerial Pole, Silks& Lyra (hoop) teacher, certified ballet student and teacher (technique). Certified Piano teacher (Trinity exams).

ELECTIVES

Blockchain and cryptocurrencies, Digitalization and Privacy, Threat Model applications, Computational/Mathematical Biology, Biostatistics and Informatics, Biological warfare systems applications, UI/UX and Innovation wireframing, Calculus and Symbolic Logic.