Saurabh Aggarwal

Software Engineer | AI Engineer

+1-386-456-8682 | saurabh.bytes@gmail.com | linkedin.com/in/saurabhcodes | github.com/saurabh-08 | asaurabh.com

TECHNICAL SKILLS

Java, Python, C/C++, SQL, Git, GitHub, JIRA, Apache Kafka, REST APIs, Postman, Docker, MongoDB, AWS (EC2, S3, IAM), Linux, Splunk, TensorFlow, PyTorch, scikit-learn, NumPy, Pandas, OpenCV, Hugging Face, Matplotlib, Tableau, Excel, HTML, CSS, JavaScript

PROFESSIONAL EXPERIENCE

Teaching Assistant - Database Concepts, *University of Central Florida* **Orlando, FL** *01/2024 - 05/2025*
- Delivered lab instruction and SQL support to 200+ students, improving assignment completion accuracy by 20%
- Automated SQL grading workflow, saving 5+ hours/week and reducing manual effort by 40%
- Collaborated with faculty to design assignments aligned with weekly course content

Software Engineer, *Tata Consultancy Services Ltd.* **Bangalore, India** *04/2021 - 07/2023*
- Engineered and maintained 160+ Kafka streaming components for a high-throughput banking platform
- Spearheaded the enhancement of an AI-based fraud detection pipeline, boosting accuracy by 15%
- Interviewed and assessed 100+ engineering candidates, contributing to a 30% expansion in the engineering team
- Led Kafka onboarding and KT during HCL-to-TCS transition; created documentation reducing ramp-up effort for new contributors

Software Engineer Trainee, *Tata Consultancy Services Ltd.* **Bangalore, India** *10/2020 - 03/2021*
- Completed 6-month training in Java, SQL, and REST APIs through agile-based client simulations
- Ranked in top 10% (T-Factor 2); recognized for fast upskilling and technical readiness

Software Engineering Intern, *Centre for Railway Information Systems* **New Delhi, India** *05/2019 - 07/2019*
- Constructed an NLP-based chatbot to streamline internal HR inquiries, reducing manual ticket resolution time
- Conducted system testing and documented workflows for maintainability and scalability

EDUCATION

M.S., Computer Vision, *University of Central Florida* **Orlando, FL** *08/2023 - 05/2025*
- Program under the College of Engineering & Computer Science

B.Tech, Information Technology, *SRM Institute of Science & Technology* **Ghaziabad, India** *08/2016 - 05/2020*

PROJECTS

Research: Text-Driven 3D Modeling with Multi-View Synthesis and Neural Splatting
- Built a pipeline using SDXL, Zero123++, and Gaussian Splatting to generate realistic 3D models from text prompts
- Achieved 26.76 CLIP score with 22s inference (A100), outperforming DreamFusion and Magic3D in quality and speed

Face Detection Model Evaluation
- Evaluated accuracy and inference speed of pretrained face detection models across diverse datasets

Few Shot, Label-Free Pill Identification with DiNO
- Improved pill classification accuracy using self-supervised learning with ViT-based DiNO models
- Surpassed accuracy metrics of the public ePillID benchmark

An Efficient Neural Network ensemble for Diagnosis of Parkinson's in MRI
- Developed ensemble neural networks for early detection of Parkinson's from MRI data, achieving 96.12% accuracy