
# SAI KRISHNA VEERAMANENI

704-668-2461 — vsk.veeramaneni@gmail.com — linkedin

## Education

**Master of Science in Computer Science** Charlotte, NC
*University of North Carolina at Charlotte* *Dec 2023 – May 2024*
Coursework: Intro to NLP, Data Structures & Algorithms, Computer Vision, Database Systems.

**Bachelor of Technology in Computer Science and Engineering.** Visakhapatnam, India
*Gandhi Institute of Technology and management* *June 2017 – June 2021*

## Technical Skills

**Programming Languages:**: Python, Java, JavaScript
**Web Technologies**: HTML, CSS, ExtJS,ReactJs
**Frameworks:**: Spring Framework, Hibernate, Django, Express Framework, Maven
**Databases**: MongoDB, Oracle Database, PlSql, Sql
**Machine Learning:**: scikit-learn, Keras,PyTorch, opencv
**Generative AI models:**: GANs, VAEs, Stable Diffusion, RAG
**Data Visualization:**: Tableau, Power BI
**DevOps Cloud**:EC2, Lambda, IAM,VPC, Cloud Watch, Aurora, ECS, Athena, AWS Cloud9, SageMaker

## Experience

**Software Engineer** June 2020 – Dec 2022
*Tata Consultancy Services* *Hyderabad, India*

- Contributed significantly as a developer on the "Dynaport" project, reshaping import-export logistics in collaboration with Adani.
- Specialized in developing the "Railtos" module, achieving a 20% improvement in invoicing accuracy for rail-based shipments.
- Engineered key components using Spring MVC, Hibernate, and ExtJS, managing a database with over 500,000 records
- Played a pivotal role in implementing bug tracking mechanisms, reducing issue resolution time by 30% with Postman and Jenkins.
- Technology used: Extjs, Hibernate, Maven, PlSql, Spring(MVC), java, Jenkins

*Dynaport CV Billing Integration* *Hyderabad, India*

- Developed Computer Vision Model: Created an OpenCV-based computer vision model for container identification and billing automation at Adani Port Kattupalli.
- Data Collection Leadership: Spearheaded data collection, amassing a dataset of 2,000 images and videos of containers and their loading/unloading activities to train the model.
- Automation and Efficiency: Reduced manual entry by 80% through accurate detection of container number, size, type, and storage duration, significantly enhancing accuracy.
- System Integration: Integrated the computer vision system with the existing invoice generation tool, automating the creation of invoices for storage fees, handling charges, and delay penalties. This integration improved operational efficiency by 40% and billing accuracy by 30%.

**Junior Software Engineer** Jan 2024 – May 2024
*Office of Oneit University of North Carolina at Charlotte* *Charlotte, USA*

- Developed and Tested Code: Created and rigorously tested code modules and scripts to support software development for faculty and research teams.
- System Integration: Enabled seamless integration between platforms, including the UNC Charlotte University Library web page and OneIT Support website.
- Application Support: Built and maintained web and mobile applications, such as query and ticketing systems, ensuring top-tier functionality and user experience.
- Team Collaboration: Engaged in code reviews, debugging, and collaborative projects with fellow developers and TSO staff, driving productivity and innovation.

## Projects

**Mobi Trade(Trade Application)** | *HTML,CSS, Node.js, MongoDb, Postman, MongooseODM, Express Framework.*

- Developed a secure back-end system using Node.js and Express; implemented robust user authentication with MongoDB and Mongoose ODM, reducing unauthorized access attempts by 60%.
- Dynamic Inventory and API Integration: Created dynamic inventory carts for real-time updates and utilized Postman for seamless API integration, enhancing user experience and operational efficiency.
- Impact and Efficiency: Revolutionized the trading process by reducing transaction times by 50% and increasing user engagement by 35%, ensuring system reliability and high user satisfaction through rigorous testing.

**Twitter Sentiment Analysis with NLTK Techniques**

- Developed a sentiment analysis project utilizing Twitter data and NLTK techniques.
- Gathered Twitter data through the Twitter API and preprocessed it with NLTK for tokenization, stemming, and stop word removal.
- Implemented machine learning models including Naive Bayes and Support Vector Machines for sentiment classification
- Achieved an accuracy rate exceeding 85% in sentiment prediction, providing valuable insights into public opinion and sentiment trends on Twitter

**Creative Constructs: AI-Driven Architectural Imagery with Enhanced Stable Diffusion**

- AI Model Fine-Tuning: Directed the fine-tuning of a Hugging Face pre-trained Stable Diffusion XL model using DreamBooth architecture and LORA, with a focus on architectural designs.
- Technical Proficiency: Utilized Python, PyTorch, Hugging Face Transformers, LORA, and vision encoders to enhance model performance and specificity, achieving a 25% increase in model accuracy.
- Developed and processed a dataset of 500 architectural images from UNC Charlotte, significantly improving model training and output quality.
- Achieved a pioneering breakthrough in domain-specific image generation, demonstrating AI's potential in creative industries. This work set a new standard for future research and increased generation efficiency by 40%
- Github repo link:https://github.com/krishna42441/fine-tune-SDXL
- Deployed Model Link:https://huggingface.co/krishna4244/lora-trained-xl

## Certifications

- AWS Certified Solutions Architect - Associate — Nov. 2023 - Nov. 2026
- Red Hat Certified System Administrator (RHCSA) — Jan. 2019 - Jan. 2022