

Siddhant Poojary

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EDUCATION

University of California, Riverside

Master of Science - Computer Engineering

September 2022 - March 2024

Riverside, CA

University of Mumbai

Bachelor of Technology - Computer Engineering

August 2018 - June 2022

Mumbai, India

SKILLS

Languages: Python, JavaScript, TypeScript, Golang, MySQL, LangChain; **Frameworks:** Next.JS, DynamoDB, PostgreSQL, Nextflow, Flask, Tensorflow, Pytorch; **Developer Tools:** Amazon Web Services (AWS), Docker, Git, JIRA, Confluence

WORK EXPERIENCE

Satellytics | AI Software Engineer

April 2024 - Present

- Architected and deployed scalable end-to-end ML pipelines leveraging in-house TensorFlow UNet models to efficiently process terabytes of satellite imagery data. Achieved 100% pipeline automation for identifying environmental hazards.
- Developed a multi-platform satellite processing pipeline using scikit-image and Dask parallel computing on AWS ECS. Saved \$10K monthly in cloud costs and improved client deliverables.
- Spearheaded critical refactoring of the company's core natural color generation workflow attaining 99.9% pipeline reliability while reducing memory consumption by 40% in a system processing 100K+ satellite images monthly through AWS Batch.
- Engineered a satellite imagery cost optimization engine that processes complex client shapefiles across multiple vendors. Implemented APIs using FastAPI, reducing manual workload by 12 hours per project and enabling faster client onboarding.

Helix Genomics Inc. | Software Engineer Intern

June 2023 - September 2023

- Spearheaded the training and deployment of multiple state-of-the-art Language Model (LLM) systems using AWS Sagemaker, achieving a 60% boost in question-answering accuracy. Enhanced the dataset size by 5X through strategic data augmentation.
- Crafted and implemented AWS CDK scripts in Golang and JavaScript to establish a serverless, scalable architecture integrating AWS Lambda and AWS API Gateway. Led to a 20% increase in user engagement, and a request handling efficiency boost.
- Implemented the Retrieval Augmented Generation (RAG) approach using embeddings for company data, stored in Pinecone, and integrated semantic search capabilities. Led to a 45% improvement in closed-source model outcomes.
- Integrated a BERT-based document classifier and AWS Comprehend as guardrails for unintended PHI/PII data submissions, ensuring HIPAA compliance, securing a Proof of Concept (POC) approval, and winning the Summer of AI contest.

University of California, Riverside | Software Consultant

March 2023 - June 2023

- Engineered and deployed an AI research assistant processing 100K+ academic papers, reducing literature review time for graduate students while achieving an 85% recommendation relevance score based on user feedback.
- Implemented end-to-end ML pipeline with PostgreSQL/MongoDB for data storage, PyTorch for text analysis, and FastAPI deployment - system helped prepare and optimize 6 technical AI/ML workshops reaching 200+ students.

Internship Studio Inc. | Artificial Intelligence Intern

June 2021 - August 2021

- Engineered a German-to-English language translation model utilizing a Sequence-to-Sequence (Seq2Seq) architecture in Keras, achieving an accuracy rate of 90.69% on a large-scale dataset encompassing over 1,500,000 bilingual sentence pairs.
- Enhanced model performance and expedited training by 20% through advanced NLP techniques, optimized data preprocessing, and RNN-based Seq2Seq architecture, delivering superior real-time translation quality and user experience.

PROJECTS

Hate Speech Detection using BERT | Python - PyTorch - Docker - Kubernetes

January 2023 - March 2023

- Optimized BERT-based hate speech detection model securing an F1 score of 0.92 across various social media platforms.
- Containerized the model into Docker for deployment on Google Kubernetes Engine with Flask, ensuring low latency (<100ms).

Real-Time low latency Fire Detection system | TensorFlow - OpenCV - Keras

December 2021 - April 2022

- Designed a CNN that improved accuracy by 90% over existing methods in real-time fire detection via live feed cameras.
- Integrated the Twilio communication API to alert officials in real time, resulting in a 25% reduction in response time.

ACHIEVEMENTS

- Ranked in the top 5% of LeetCode programmers worldwide and Winner of UCR Programming contest 2023.
- Volunteer & Mentor, Kotak Education Foundation: Designed and delivered curriculum for underprivileged students.