

Satyam Mittal

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(+1) 559-917-8918

[Linkedin](#)

[GitHub](#)

[Portfolio](#)

Work Experience - 4+ years

Pre-Fab Innovations, Inc

California, USA

Machine Learning Software Engineer

Jan 2024 - Present

- Led the fine-tuning of multi-modality Layout-LLM models using PeFT methods in PyTorch following mixed precision.
- Developed ETL pipelines for embedding data into VectorDB, ensuring data integrity & accessibility for ML tasks.
- Utilized Python, PyTorch, Scikit-learn, MLFlow, and Airflow to build and deploy ML pipelines on AWS EC2.
- Conducted exploratory data analysis (EDA), identifying key insights to inform model development.
- Developed TDD-oriented REST APIs and microservices using Agile SDLC framework and MVC design patterns.
- Conducted weekly sprint meetings and intra-team research discussions to explore and adopt GenAI technologies.

Paytm

Delhi, India

Software Engineer

Sept 2019 - Aug 2021

- Designed and implemented Java-based REST APIs for runtime distributed caching reloads on production servers.
- Resolved critical production issues related to payment gateway response times, system overloads, and downtimes.
- Managed production releases on AWS EC2 using CI/CD pipelines.
- Collaborated with cross-functional teams (QA, Product) and assisted in A/B and user acceptance testing (UAT).
- Gained hands-on experience with cloud technologies and container systems such as Docker and Kubernetes.

Zillious Solution Pvt Ltd

Delhi, India

Technical Associate

June 2018 - Sept 2019

- Developed Java-Spring-MVC based REST APIs with atomic SQL transactions for B2B tools.
- Collaborated on a microservice for a deep learning OCR parsing model, improving operational efficiency and accuracy.
- Revamped the front-end design for search result pages using React-JS.

Zillious Solution Pvt Ltd

Delhi, India

Software Engineer Internship

June 2017 - Aug 2017

- Developed Java-Spring-MVC based Biometric attendance analysis REST APIs for ERP tool used in Zillious Solutions .
- Developed UI/UX for the ERP tool and a detailed leave tracking analysis dashboard for the tool.
- Tech-stack: Java, Spring-MVC, JavaScript, MySQL, Spring-security, SDLC, Jenkins, CI/CD.

Education

California State University - Fresno, CA USA

Master of Science (M.S.)

Aug 2021 - Dec 2023

Major in Computer Science

Sant Longowal Institute of Engineering & Technology, India

Bachelor of Engineering(B.E.)

Aug 2014 - May 2018

Major in Computer Science

Projects | [Github](#)

Thesis - M.S |Computer Science - CSU Fresno | ([Thesis-Link](#))

Topic: Blindfolded Spider-Man Optimization: A Single-point Metaheuristic Suitable for Continuous and Discrete Space

- Developed a new metaheuristic algorithm using memoization concept in higher dimensions.
- Researched on unbounded knapsack discrete problems and applied metaheuristics to achieve the most optimum. result following several higher dimensional implementations ranging from 2-Dimension to 20-Dimensions.
- Data analysis on statistical significance tests like shapiro-wills, kruskal-wallis, converse tests with 0.05 p value.
- All experiments run on Linux containers on AWS-EC2 instances.

Tugposts, WebApplication on AWS-EC2 | [tugposts.com](#)

- An initiative to create a central tech content open source directory, hosted on AWS-EC2 using MySQL DB and designed on Spring Boot Framework using Java with complete SSL encryption done on EC2

Non-Convex Optimization Opensource Python Package | [pypi.org](#) | [GitHub](#)

- Python package **published on pypi.org** providing a collection of non-convex functions for testing and benchmarking optimization algorithms, written in Python and **install using pip** command

Technical Skills

Programming Languages & Frameworks: Python, Java, JavaScript, Spring-MVC, Flask, JavaScript, Data Structures

Software Machine Learning Engineering: PyTorch, TensorFlow, Scikit-learn, Scipy, OpenCV, HuggingFace-Transformer, LLMs Fine Tuning, ETL ML Pipeline.

Development Practices & Tools: RDBMS, MySQL, VectorDB, Object-Oriented Programming, SDLC, Agile Development, Scrum, TDD, CI/CD, JIRA, Jenkins, Docker, Kubernetes, MLFlow, Apache Airflow, Kafka, , Spark, AWS Cloud.