

Tanaya Pawar

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EDUCATION

New York University

Masters in Computer Science, GPA: 3.88/4

New York, USA

Aug 2024 - May 2026

Coursework: Machine Learning, Open Source, Software Engineering, Big Data, Deep Learning, Algorithms

Savitribai Phule Pune University

Bachelor Of Engineering in Computer Engineering *with distinction*, GPA: 8.64/10

Pune, India

Aug 2020 - June 2024

Coursework: Data Structures, Object Oriented Programming, Operating Systems, Cloud Computing

EXPERIENCE

New York University, New York, USA | *Grader/Tutor*

Starting Sep 2025

- Evaluate assignments & projects for graduate level course programming languages covering OOP, structures
- Will provide feedback on functional programming code, ensuring conceptual understanding and code correctness

Referrio, New York, USA | *Full Stack Developer Intern*

June 2025 - August 2025

- Engineered a scalable fullstack application for a fast-growing startup using **Next.js** and **React.js**, optimizing dynamic UIs and backend logic to modernize internal workflows; improved overall system performance by **40%** and reduced backend latency by **25%**
- Integrated **RESTful APIs** using **Axios**, achieved **100% data consistency**, reduced sync issues by **30%**
- Built a secure, real-time support ticketing system using **Node.js**, **Express.js**, and **PostgreSQL**
- Built reusable UI components with **TailwindCSS** and **ShadCN UI** improving responsiveness and usability

Wilo Mather And Platt, Pune, India | *Data Analyst Intern*

Oct 2022 - Dec 2022

- Engineered data solutions to monitor **financial risks** and expenses and optimize **\$23M** annual budget using **Power BI** and **SQL APIs** to streamline financial analytics for **cross-functional** teams
- Prepared monthly status reports and presented findings to cross-functional teams along with alert to identify high cost areas & potential cost savings opportunities
- Achieved a **38%** reduction in expenses using data analysis over **2022** by analyzing employee behavior patterns

PROJECTS

CrisisCast | [GitHub](#) | *Apache Kafka, Pyspark, MongoDB, Docker, FastAPI, Qdrant*

- Developed real-time crisis detection pipeline using **Kafka**, **Spark**, **Docker**, ingestion from Reddit & Bluesky
- Integrated a locally hosted LLM via FastAPI for crisis classification, achieved low latency inference & filtering
- Engineered a modular architecture with **MongoDB** and **Qdrant** for enriched storage and fast vector search, powering a real-time dashboard with semantic querying and trend visualizations
- Tuned Kafka pipeline for resilience & scalability achieved 800–1000 msg/s throughput with fault recovery

Parameter-Efficient Transformer | [GitHub](#) | *PyTorch, Hugging Face, LoRA, Python*

- Fine-tuned **RoBERTa**-base on AG News using **LoRA**, training just 0.4% of weights for parameter efficiency
- Achieved **92.3%** test accuracy in 3 epochs, outperforming full fine-tuning with 99.6% fewer parameters
- Reduced GPU memory by **50%** and training time to under 5 min/epoch, enabling fast, scalable deployment

Comparative Analysis of LLMs | [GitHub](#) | *Hugging Face, PyTorch, LLM's*

- Explored BERT and GPT by implementing both architectures from scratch and fine-tuning them for NLP tasks
- Trained scaled-down BERT, GPT on WikiText & fine-tuned on SQuAD, CNN/DailyMail using transfer learning
- Achieved losses of **1.67 (BERT)** & **2.97 (GPT)**, highlighting strengths in question answering & summarization
- Implemented a modular **inference pipeline** for **real-time** predictions and model performance

PUBLICATIONS

"[Precision Farming Methods Using Machine Learning](#)", [Agro-Advice](#) | *ICESTM*

Feb 3 2024

- Conducted systematic analysis of 24 peer-reviewed studies on ML-driven agricultural recommendation systems
- Identified critical gaps in existing models, insufficient data and limited adaptability to microclimate variations
- Proposed hybrid approach combining Random Forest and XGBoost algorithms, improving prediction accuracy by 17.3% introduced paired cropping optimization demonstrating 22% yield improvement in experimental validation

SKILLS

Programming: Python, JavaScript, C++, R, HTML, CSS, Typescript, SQL, MongoDB

Frameworks: Django, Django Rest Framework, React, NextJs, Nodejs, Expressjs, TailwindCSS, ShadCN UI

Libraries: Streamlit, Tensorflow, Keras, Sci-kit Learn, Pandas, NumPy, NLTK, PyTorch, OpenCV, Matplotlib

APIs and Tools: REST APIs, Power BI, Tableau, Microsoft Office, Hadoop, Spark, Linux

Cloud: AWS, Kubernetes, Docker, Snowflake