

Bhairavi Sawantdesai

+1 (917) 914 6238 | [bhairavivsd.github.io](https://github.com/bhairavivsd) | bhairavi.s@nyu.edu | linkedin.com/in/bhairavi-sawantdesai | github.com/BhairaviVSD

EDUCATION

Master of Science in Computer Engineering

GPA: 3.7/4

New York University, NY, USA

Sep 2023 – May 2025

Relevant Coursework: Advanced Machine Learning, Deep Learning, Big Data, Operating Systems, Network Security

TECHNICAL SKILLS

Languages: Python, Java, C/C++ , JavaScript, TypeScript, Go, Rust, C#, Swift

Frameworks & Libraries: React, Angular, Vue, Node.js, Express.js, Spring Boot, Django, .NET, TensorFlow, PyTorch, scikit-learn, Keras, OpenCV, Hugging Face

Databases & Web: PostgreSQL, MySQL, Oracle, Redis, Firebase, SQL, NoSQL, HTML, CSS, REST APIs, GraphQL

Cloud & DevOps: AWS (Lambda, DynamoDB, S3, EC2), CI/CD pipelines, Jenkins, Docker, Kubernetes, Git, GitHub

WORK EXPERIENCE

Graduate Research Assistant

New York University, NY, USA

Aug 2024 – Dec 2024

- Delivered a recession forecasting system using time-series anomaly analysis and econometric models on 1.2 M+ FRED/ALFRED indicators, boosting predictive accuracy by 15%.
- Enabled 20% faster identification of early recession signals for researchers by surfacing patterns in macroeconomic trends.
- Enhanced economic forecasting with multivariate filtering and Markov-switching models, reducing latency in regime-shift detection by 30%.
- Built a real-time data pipeline using Apache Spark and AWS Lambda, powering sub-2s updates to research dashboards and enabling faster model iteration.

Software Engineer 2

Accenture, MH, India

Jun 2021 – Jul 2023

- Set up a serverless system with AWS Lambda, DynamoDB, and S3 that cut compute costs by 40% and made backend processes noticeably faster for internal teams.
- Built a Vue.js and GraphQL dashboard used by 30K+ users; tuning APIs and state logic improved load times by 40%, helping business and sales teams access insights quicker.
- Rolled out microservices on Kubernetes to support 10M+ daily transactions, which sped up deployments by 50% and made services more reliable under heavy load.
- Led frontend work on 20+ React components and automated CI/CD with Jenkins and Docker — this brought release cycle down to just 5 days and cut downtime to zero.

PROJECTS

StoryCrafter [GitHub](#)

Programmed an AI-powered storytelling app using AWS Rekognition for image analysis and OpenAI's GPT for story generation. Implemented secure authentication with AWS Cognito and integrated AWS API Gateway for RESTful API interactions. Leveraged AWS Lambda for scalable backend operations, hosted on AWS EC2, and used AWS DynamoDB for efficient data storage.

RAG Text Summarizer Web App [GitHub](#)

Developed a Next.js frontend and Flask backend for an AI text summarizer using RAG and the [sshleifer/distilbart-cnn-12-6](#) model, achieving sub-3s response times for 10,000-word inputs.

CineMatch – AI Movie Recommendation [GitHub](#)

Architected a recommendation system using MinHash segmentation and ALS on the MovieLens dataset (33M+ ratings, 86K+ movies), achieving an ALS MAP of 0.9378 and Jaccard Similarity of 0.95. Validated with a Pearson correlation of 1.00 and RMSE of 0.8793.

FoodForThought [GitHub](#)

Optimized an AI-enabled food classification model for real-time inference on Kubernetes, improving accuracy from 76% to 89% with transfer learning and CNN fine-tuning while reducing latency to 239ms and cutting costs by 30% through auto-scaling.

TaskManager – Full-Stack Task Management App [GitHub](#)

Engineered a task management system using Java, Spring Boot, and H2 database, supporting 1,000+ concurrent users while reducing API response time by 35% through optimized query execution and caching strategies.