

EDUCATION

Northeastern University (Khoury College of Computer Sciences) , Boston, MA	Sept 2023 – May 2025
Master of Science (MS) in Computer Science	GPA: 3.62/4.0
Relevant courses: Algorithms, Natural Language Processing, Database Management, Large Scale Distributed Systems, Machine Learning, Reinforcement Learning, Machine Learning Operations (MLOps)	
Presidency University , Bangalore, India	June 2018 – June 2022
Bachelor of Technology (BS) in Computer Science and Engineering,	GPA: 3.6/4.0
Relevant courses: Object Oriented Programming, Data Structures, Data Visualization, Operating Systems, Data Science & Analytics, Deep Learning	

TECHNICAL KNOWLEDGE

Languages/OS:	Java, Python, JavaScript, C++, HTML, CSS, Linux
Databases:	SQL, NoSQL, MySQL, Postgres, MongoDB, Redis, Cassandra
Technologies/Skills:	PyTorch, Large Language Models (LLMs), TensorFlow, Transformers, PySpark, GenAI, Pandas, Apache Airflow, RAGs, Grafana, A/B Testing, PyTest, Hadoop, RESTful APIs, Kafka, PowerBI
Cloud & DevOps:	Google Cloud Platform (GCP), Kubernetes, AWS, Docker, Git, Jenkins
Certifications:	Machine Learning A-Z (Python in Data Science), Google Cloud Computing by NPTEL

WORK EXPERIENCE

Graduate Teaching Assistant (Northeastern University, Boston, MA)	Jan 2024 – May 2025
<ul style="list-style-type: none">Teaching Assistant for the courses in Natural Language Processing (CS 6120) and Database Design (CS 3200).Managed 60+ students, designed lab coursework, graded assignments, exams and conducted lectures and lab sessions for students.	
Associate Software Engineer (Capgemini Technology Services, Bangalore, India)	Feb 2022 – July 2023
<ul style="list-style-type: none">Contributed to Cisco's Network Convergence System 4K, developed router network features and new modules using Java Swing and XML.Improved the Transport Controller GUI using Figma, deployed into production leading to performance improvement of the router by 4.5%.Collaborated with Verizon on Optical Network Enhancement to revamp the user interface and implement optic channel-based network convergence; led to 6.5% performance boost in Q2 by optimized routing and visualization modules.Completed a 3-month internship as a 'Full Stack Developer', worked on SpringBoot, distributed multi-tier systems, JavaScript and ReactJS.	
Machine Learning Intern (Verzeo, Bangalore, India)	July 2020 – Sept 2020
<ul style="list-style-type: none">Performed gender classification using Twitter data with NLP techniques (sentiment analysis, TF-IDF) and trained Logistic Regression models using scikit-learn, NLTK, and seaborn/matplotlib for result visualization.Built an image classification pipeline using CNNs with TensorFlow, Keras, and OpenCV; optimized model performance with data augmentation, and maintained code and experiments with Git and virtual environments.	

PROJECTS

ResuMatrix: AI-Powered Resume Analyzer & Ranker	Jan 2025 – May 2025
<ul style="list-style-type: none">Developed an end-to-end ML pipeline for resume filtering and ranking, automating candidate evaluation based on job descriptions. Built a XGBoost model to train on embeddings generated by SBERT and Pinecone to produce similarity scores for resume classification (fit/no fit).Fine-tuned LLMs (Gemini, Mistral 7, Borda) for ranking and optimizing candidate selection process which improved precision by 25-30% on job description-resume relevance. Data Pipelines for both models were orchestrated via Apache Airflow.Integrated CI/CD automation using Jenkins and Docker, for continuous model updates (reducing manual effort by 60% and processing 400+ resumes in minutes). Deployment on Google Cloud Platform (GCP) helped cut cloud storage costs by 40%, optimizing resource usage.Tracked model performance using MLflow (ensuring 100% reproducibility). Designed automated retraining to address concept drift and maintain model accuracy. Deployed an interactive dashboard (Grafana/Streamlit) for real-time insights and recruiter-friendly visualization.	
Story Sage: LLM-Based Thematic Short Story Generator	Jan 2024 – Apr 2024
<ul style="list-style-type: none">Built an interactive LLM short story generation tool, accepts 2k-character input with an ending theme. Fine-tuned GIST/GPT-2 and Flan-T5 for theme classification and summarization. Tracked experiment metrics with Weights & Biases (wandb).Integrated components into LLaMA2-7B using Transformers and PEFT for fine-tuning; achieved ROUGE-L: 0.50 and perplexity: 2.9.	
Weather-Driven Smart Home Energy Consumption and its Optimization	Oct 2024 – Dec 2024
<ul style="list-style-type: none">Performed time series analysis and developed an ML pipeline to forecast and optimize smart home energy consumption using VAR (Vector Autoregression), Prophet, and LightGBM Regressor models, leveraging appliance-level usage data and weather conditions.Designed a regression-based optimization strategy to minimize high demand usage by simulating appliances schedule and reducing peak consumption patterns. This resulted in a reduction of traditional energy consumption costs by 15%.	
Mars Terrain Exploration and Navigation Framework	Sept 2024 – Dec 2024
<ul style="list-style-type: none">Engineered an autonomous robotic exploration system for simulated Martian terrains using Deep Reinforcement Learning (DRL) algorithms - Proximal Policy Optimization (PPO) and Twin Delayed DDPG (TD3), integrated with OpenAI Gym, PyTorch, and NumPy.Designed custom reward functions to enhance terrain coverage, energy efficiency, and obstacle avoidance; simulated dynamics with Matplotlib, OpenCV, and Unity ML-Agents for realistic visualization and agent feedback.	
Fitness Tracker Application	June 2022 – Aug 2022
<ul style="list-style-type: none">Developed a full stack application with Java and Chart.js, aimed at tracking/visualizing calories, fitness goals and add/manage diets for users.Created 14 REST API endpoints using FastAPI and Swagger, designed frontend with AngularJS, styled with Tailwind CSS and JavaScript for website design. Integrated Firebase Authentication for secure user login and session management.Achieved 90%+ code coverage by writing effective tests using JUnit testing/Mockito, proving its usefulness in smart watches. Used Redis for caching frequently accessed data. Won 2nd place for this application in the Annual Capgemini Hack Week, 2022.	