

Pavithran Gnanasekaran

Website: [Pavithran](#) | pavithrangnanasekaran@gmail.com | (716)-948-6114 | LinkedIn: [Pavithran](#) | GitHub: [Pavithran](#)

EDUCATION

State University of New York at Buffalo

M.S. in Computer Science

Buffalo, New York

Expected Graduation, Dec 2025

- **Concentrations:** Artificial Intelligence and Machine Learning **GPA:** 3.79/4.00
- **Related Coursework:** Data Structures & Algorithms, Machine Learning, Reinforcement Learning, Deep Learning, Data Science, Database Systems, Operating Systems, Software Engineering, Computer Vision, Natural Language Processing

EXPERIENCE & INTERNSHIPS

Alvora AI

Software Developer Intern – Artificial Intelligence

Dover, Delaware

Sept 2025 – Present

- Engineered Python pipelines integrating LLMs via APIs, deploying on AWS Sagemaker & GCP AI Platform for scale.
- Optimized prompt inputs and output parsing, leveraging AWS S3 & GCP Cloud Storage to improve reliability & speed.
- Built debugging utilities and automated docs, containerized with Docker & Kubernetes for maintainability & scale.

UB-Office of Academic Affairs

Software Engineer- Data & AI Platforms

Buffalo, New York

Mar 2025 – May 2025

- Designed & implemented data pipelines using Apache Spark, Kafka, and Airflow, boosting speed and reliability.
- Deployed microservices on Kubernetes with Docker & AWS EKS, ensuring 99% uptime seamless cross-system scaling.
- Built AI-integrated frameworks with TensorFlow, PyTorch, and REST APIs, accelerating analytics & dev cycles.
- Optimized PostgreSQL & MySQL queries, improving data accuracy by 15% and resolving performance bottleneck.

Rail Wheel Factory, Indian Railways

Software Engineer Intern

Bangalore, India

Aug 2023 – Sept 2023

- Built secure Django+Flask web portal with MySQL and Redis backend handling 1k+ records reducing data errors by 25%.
- Integrated role-based authentication, REST APIs, and CI/CD pipelines (GitHub Actions) to enforce secure access & SAML.
- Automated log validation & uptime monitoring with Dockerized k8s telemetry scripts, improving fault recovery by 20%.

PROJECTS

LLM-Based Text Summarization NLP Models with BART

Individual Project

Buffalo, New York

Mar 2025 – May 2025

- Built BART+RAG summarizer handling 4K words, generating concise 100–200 word outputs with contextual retrieval.
- Trained with PyTorch AMP & Hugging Face, reducing GPU memory by 35% and accelerating convergence significantly.
- Deployed FastAPI backend on AWS EC2 with Docker, Nginx, PostgreSQL & Pinecone <200ms latency for 100+ request.

Full-Stack Portfolio Web App

Team Member

Buffalo, New York

June 2025 -Aug 2025

- Built a scalable Next.js, React, TailwindCSS portfolio app with TypeScript for reusable and maintainable UI component.
- Implemented a Node.js/Express backend with MongoDB to handle projects and blog data for dynamic content.
- Deployment on vercel with GitHub Actions CI/CD, ensuring API response times under 200ms for optimal performance.

Cloud-Native Automotive Database & Analytics Platform

Team Member

Buffalo, New York

Feb 2025 – Apr 2025

- Architected AWS RDS PostgreSQL schema with complex trigger SQL queries, automating workflows for 30k+ record.
- Built ingestion pipeline using BeautifulSoup + AWS S3 + Lambda, enabling scalable scraping & structured data storage.
- Deployed Streamlit dashboard on Kubernetes with Docker, CI/CD, Grafana, delivering insights to owners & customers.

RESEARCH PAPER

Self-Supervised Learning for Cross Domain Specific Classification (IEEE CogMI 2025 – Paper 7461)

Team Member

Buffalo, New York

Feb 2025 – May 2025

SKILLS

Languages/Databases: Python, C/C++, Java, Ruby, JavaScript, C#, Typescript, Dart, MySQL, MongoDB, Firebase, PostgreSQL

Web/ App Development: HTML/CSS, Flask, Django, AngularJs, ReactJs, Node.js, TailwindCSS, Express, FastAPI, Ruby, Flutter

AI/Cloud Technologies: PyTorch, TensorFlow, GenAI, RAG, AWS, Azure, GCP, Kafka, Terraform, Docker, Kubernetes, GitHub

Other: GDB, Tableau, Git, Vs Code, Xcode, Linux, Jira, Bash, Snowflake