

Surya Malik

sgmalik.com

📍 Boston, United States ✉️ malik.g.surya@gmail.com ☎️ 617-943-6993 📱 in/surya-malik 🌐 github- sgmalik

EXPERIENCE

Junior Full-Stack Developer

September 2024 - Present, Remote

Sycamore Informatics

- Implemented comprehensive unit tests with **RSpec** and **PyTest**, enhancing the reliability and performance of Sycamore's Statistical Computing Environment and Data Science Workbench, resulting in 100% test coverage.
- Optimized software delivery by implementing agile project management strategies, resulting in on-time sprint delivery through precise **TargetProcess** workflow management.

Artificial Intelligence Intern

May 2024 - August 2024, Remote

Sycamore Informatics

- Pioneered an **LLM**-powered application for automated **SAS** code generation, resulting in a significant reduction in time required to create **Table Listing Figures**.
- Leveraged **Test Driven Development** and Python tools such as **PyTest**, **Streamlit/Gradio/Shiny**, and **linters** for quick iterations, enhancing application functionality and performance.
- Improved code generation through advanced prompting techniques such as **Structured Chain of Thought**, **Zero-Shot**, and **Instruction Based Prompting** leading to higher code quality based on custom metrics.
- Actively contributed to Agile development processes and successful demonstrations of the LLM application in company-wide demos, garnering executive support for project expansion

PROJECTS

Housing-Price Predictor

- Developed a machine learning pipeline to predict housing prices using **regression** and **classification** models trained on 545 samples.
- Evaluated **Linear Regression**, **Decision Tree's**, **Random Forest**, **SVM** and **Neural Network** models using scoring metrics such as **accuracy** and **F1-score**.
- Mitigated overfitting through **regularization**, optimized models with **Gradient Descent**, and tuned hyperparameters with **grid-search** and **cross-validation**.

AI-Chatbot

- Built and deployed a functioning **Resume Chatbot** utilizing **OpenAI's GPT4o Large Language Model**, the **Next.js** framework, and **MaterialUI**.
- Created a **Retrieval Augmented Generation Database** using **Pinecone** to supplement the **LLM** with knowledge about myself for potential recruiters.
- Engineered system prompt allowing for multi-language support based on user selection.

Inventory Management

- Built and deployed a pantry management system utilizing **Next.js**, **React.js**, **Firebase** for data storage, and **MaterialUI** for the front-end components.
- Leveraged **OpenAI's GPT4o Large Language Model** to generate recipes based off ingredients in a user's pantry.
- Authenticated users using **Google Sign-On** allowing for multiple user sessions.

EDUCATION

Bachelor of Science in Computer Science

Minor in Statistics • University of Vermont • Burlington, VT • 2026 • 3.85

- Dean's List Spring 2023 - Present
- Intrafraternity Council President
- Intro to Python Teaching Assistant
- Computability and Complexity Teaching Assistant
- Secretary of Pi Kappa Phi Chapter

SKILLS

Technical Skills: Python, Flask, TensorFlow, Ruby on Rails, Scikit-Learn, Next.js, Pytest, PostgreSQL, Java, Javascript, Git, Docker, Pandas, Numpy.

Professional: Agile/Scrum Methodologies, Presentation, Collaboration, Teamwork, Creative Thinking, Problem Solving, Customer Service, Leadership.