# Saikarthik Mummadisingu

#### Education

# Stevens Institute of Technology · Hoboken, NJ

Bachelor of Science in Computer Science

Expected May 2026

**GPA:** 3.85/4.0

**Relevant Coursework:** Web Programming, Database Management Systems, Data Structures, Algorithms, Systems Programming, Linear Algebra, Computer Architecture

#### **Technical Skills**

Languages: Java, Python, HTML/CSS, JavaScript, C/C++, SQL

Tools & Libraries: React, Node.js, Express, Spring Boot, MongoDB, PostgreSQL, Firebase, GitHub, Git

### Experience

#### Software Development Research Intern

May 2024 - July 2024

Stevens Institute of Technology, School of Systems and Enterprises

Hoboken, NJ

- Developed a Google Chrome extension for GitHub automating commit message generation for users' repositories, enhancing code documentation quality
- Integrated **RefactoringMiner API** with a **Spring Boot** backend to obtain and analyze specific refactoring instances within GitHub commit pages
- Improved developers' understanding of code modifications by leveraging **OpenAI's GPT-3.5-Turbo-Instruct Model** to generate informative commit summaries from refactoring changes
- Optimized data access efficiency and reduced token usage from GPT-3.5-Turbo-Instruct Model by integrating a MySQL database with the backend, improving commit message retrieval times

#### Undergraduate Researcher

May 2023 - August 2023

Stevens Institute of Technology, School of Business

Hoboken, NJ

- Designed an experimental online platform utilizing JupyterLab and JupyterHub to investigate how generative A.I. tools can impact software engineering workflows
- Collaborated with Purdue University to integrate the **Jupyter AI** extension into their IronHacks platform, incorporating leading generative models such as **AI21**, **OpenAI**, and **Hugging Face** for improved code completion, debugging, and refactoring
- Analyzed research data on changes in the software development process through Google Firebase

# **Projects**

EduBoard | React, Node.js, Express, MongoDB, NodeMailer

- Designed a user-friendly interface using **React**, helping students to efficiently create, organize, and manage class sections and associated tasks throughout their semester
- Built backend server using **Node.js** and **Express** integrated with a **MongoDB** database, ensuring secure and efficient data storage and retrieval for class and task data
- Developed a notification system using **NodeMailer** to send emails to users, notifying them of upcoming due dates

Final Exam Finder @ Stevens | Headstarter AI Hackathon | React, Node.js, Express, PostgreSQL, Render

- Created a full stack application with a team of 3 members to help streamline finding final exam dates and times for students at Stevens Institute of Technology
- Integrated final exam schedules from Excel into a **PostgreSQL** database, and built backend server using **Node.js** and **Express** to handle user data and perform database queries for exam date retrieval
- Deployed the application and PostgreSQL database on Render, ensuring high availability for 1000+ students

#### Billion Oyster Project | Python, NumPy, Scikit-Learn, MatplotLib

- Directed a research project with a team of 5 members to analyze correlations between oyster shell sizes and habitat temperature on water filtration abilities through linear regression models
- Leveraged Python libraries including NumPy, Matplotlib, and Scikit-Learn for data processing and statistical modeling from 10,000+ data points

# $MiniShell \mid C, UNIX$

- Developed a robust C program replicating a Unix shell, supporting essential terminal operations
- Implemented core shell commands, including cd, exit, ls, pwd, and a custom lp function for listing active processes
- Enhanced program reliability by incorporating signal handling, specifically capturing **SIGINT** to return the user to the prompt without terminating the program