Saikarthik Mummadisingu

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Education

Stevens Institute of Technology · Hoboken, NJ *Expected May 2026*

Bachelor of Science in Computer Science ***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++
Tools & Libraries: Node.js, MongoDB, Spring Boot, NumPy, Matplotlib, Scikit-Learn, Firebase
DevOps: GitHub, Git

Experience

Software Development Research Intern May 2024 – Present

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** and hosted platform using JupyterHub

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

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
- Presented findings as lead speaker to group of panelists for a summer program at Pace University

MiniShell *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