SULABH KATILA

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EDUCATION

St. Joseph's University

May 2026

B.S. in Mathematics and Computer Science

GPA: 3.98/4.0

- **Relevant Coursework**: Data Structures & Algorithms, Advanced Computer Programming, Operating Systems, Computer Organization, Probability & Statistics, Linear Algebra, Calculus, Differential Equations
- Honors & Awards: Honor's Program, Esse-Non Videri Excellence Scholarship, Arts & Science Grant, Dean's List (x4)
- Leadership: Computer Club Co-Vice President (2023 2024), Campus Activities Board Member

TECHNICAL SKILLS

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

Frameworks and Libraries: React.js, Express.js, Flask, Django, Mongoose, NumPy, Pandas, Matplotlib

Tools and Technologies: Git, Docker, Node.js, MongoDB, MySQL, VS Code, Vim

EXPERIENCE

St. Joseph's University

June 2024 - Present

Summer Undergraduate Research Fellow

- Collaborate with Professor Zamagias to conduct research on New York City real estate dynamics
- Utilize Python for comprehensive data collection, cleaning, preparation, feature engineering, and model deployment
- Apply **regression** algorithms, including Linear Regression, Random Forest Regression, Gradient Boosting Regression, and Neural Network Regression, to analyze property price trends
- Employ advanced evaluation techniques to optimize model accuracy

Boys Hope Girls Hope of New York

February 2024 – May 2024

Mathematics Tutor

- Facilitated comprehensive one-on-one and group tutoring sessions for students from underprivileged backgrounds at Bishop Loughlin Memorial High School in Algebra, Geometry, and Pre-Calculus
- Collaborated closely with each student to conduct comprehensive evaluations, identifying area of challenge and strength
- Tailored individualized study plans, resulting in measurable improvements in their understanding and performance

St. Joseph's University

September 2023 – May 2024

Mathematics and Computer Science Peer Tutor

- Successfully conducted over **50** personalized monthly tutoring sessions, resulting up to **80%** improvement in test scores for students enrolled in Java Programming, Scripting Languages, Calculus, and Probability and Statistics
- Received recognition for consistently delivering outstanding results and high levels of client satisfaction

PROJECTS

Email Read Receipts Generator:

- Developed a chrome extension to embed tracking pixel in emails, enabling the receipt of read confirmations
- Designed user-friendly UI elements in vanilla **JavaScript** to easily enable/disable tracking emails with a single click
- Built an HTTPS server and SMTPS client from scratch in C to serve tracking pixels and send read receipts, employing multi-threading and multi-processing for enhanced performance
- Implemented database integration to log and analyze email interaction data, facilitating insightful tracking records

Code Royale:

- Developed a full-stack web application in MERN stack to provide a platform for multi-player coding challenges
- Engineered comprehensive user functionalities, including friend invitations, challenge invitations, and messaging
- Implemented real-time multi-player coding battles utilizing **Socket.io** for seamless, live interactions between users
- Integrated secure sandbox environment for isolated code execution and JWT to ensure secure interaction

Job Application Tracking Bot:

- Engineered a Python Program to automate job application tracking eliminating the possibility of email oversights
- Utilized Google Cloud APIs to enable email parsing, leveraging natural language processing and PaLM for data extraction
- Integrated feature to automatically **create** and **update** Google Sheets with application information, including company name, role, application status, links to recent email messages, notes, and more