Andrew Juang

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EDUCATION

Boston University   Sep 2022 - Present
BA Computer Science and Statistics; GPA : 4.0/4.0   *Boston, MA*

Stuyvesant High School   Sep 2018 - Jun 2022
Cumulative GPA: 96 / 100   *New York, NY*

Relevant Coursework: Concepts of Programming Languages, Computer Systems, Introduction to Data Structures & Algorithms, Linear Algebra, Multivariate Calculus, Discrete Mathematics, AP Physics C: Mechanics + E&M
Awards & Honors: 2x AIME Qualifier (ranked top 3000 in the nation for math), NYC Math Team Member, Boston University Presidential Scholarship, USA Computing Olympiad Silver Qualifier, National Merit Scholarship

TECHNICAL SKILLS

Languages: Python, HTML / CSS, Javascript, C, C++, Java, SQL
Frameworks & Tools: Git, Github, Flask, Bootstrap, NumPy, React, Express, Node, MongoDB, LaTeX, Agile

EXPERIENCE

Yahoo!   May 2023 – Present
Software Engineer Intern (current assignment)   *New York, NY*
- Implement the audience data pipeline in Apache Beam to enhance scalability and efficiency of data processing through the batch and stream processing capabilities of Apache Beam's programming model
- Oversee the migration of the data pipeline to the Google Cloud platform utilizing services such as Google Cloud Dataflow and Google Cloud Storage to optimize engagement metrics data processing and storage

Numeraxial LLC   Aug 2022
Software Engineer Intern   *Remote*
- Constructed a web user interface that helps investors manage portfolios by utilizing React and developing the Figma wireframe to enhance mobile user experience
- Integrated MongoDB Change Streams with Socket.IO to enable real-time data updates and improve risk analysis.

ThinkSpark Inc.   May 2022 – Jul 2022
Web Development Intern   *Remote*
- Upgraded SEO techniques for the Slogan Slingers website by improving keyword targeting, disavowing backlinks, updating XML sitemaps, and upgrading the site's security
- Worked with the digital marketing, field marketing, and product marketing teams to increase user engagement

PROJECTS

Poi | *YOLOv5, NumPy, Pandas, OpenCV*
- Trained a custom machine learning model utilizing YOLOv5 to detect poi (a weighted object twirled in complex patterns) within images and videos to support performers refine their dance technique
- Employed gradient descent optimization techniques to fit a parametric equation to the user's spinning motion, leveraging mathematical modeling to provide recommendations on adjusting speed, amplitude, and trajectory

TopoTraversal | *NumPy, PyGMT, Tkinter, Pandas, OpenSimplex*
- Computed best paths given certain geographical coordinates by image processing a topographical map to help with planning and creating paths in the wilderness as a part of the Google NYC Mentorship Program
- Developed a graph theory algorithm that takes into account terrain slope, distance, and water using my knowledge of BFS, DFS, and Dijkstra's Algorithm

Teacher Tally | *Flask, SQLite3, Google OAuth 2.0, HTML/CSS, Jinja2, Bootstrap*
- Developed and deployed a Flask web application to make information about every teacher's emails, course syllabi, and free periods/office hours more accessible
- Utilized Google OAuth 2.0 to ensure that only authorized users within the school community can access sensitive teacher information, safeguarding privacy and data integrity

TypeRacer | *C, NCurses*
- Implemented Transmission Control Protocol between client/server using packet structs and the 3-way Handshake as a part of a broader project to improve one's typing speed
- Leveraged NCurses to dynamically display the Server Connections, Words Per Minute, and Users' Progress