

# Michael Cai

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## EDUCATION

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**New York University**, Graduate School of Arts and Science

New York, NY

Masters of Science in Computer Science | GPA: 3.89/4.00

Expected May 2024

**Queens College CUNY**

Queens, NY

Bachelor of Science in Computer Science | GPA: 3.97/4.00 | Summa Cum Laude

May 2022

### Relevant Coursework:

Data Analytics, Cloud Computing, Graphics, Data Structures & Algorithms, Databases, Internet & Web Technologies

## SKILLS

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**Programming:** C, C++, Java, Python, JavaScript, HTML, CSS, Node.js, React JS, SQL

**Technologies:** Git/Github, Docker, Tensorflow, VS Code, Eclipse, Pandas, Scikit-Learn, MongoDB, Linux

## PROJECTS

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**Animated 3d Objects with Raster Pipeline (C++)**, CSCI GA 2270 Computer Graphics, New York University April 2023

- Wrote linear transformations and shading code for vertex, fragment, and blending shaders to render 3d objects.
- Investigated a bug that TAs were not able to solve to improve accuracy of project outputs.

**Text Processing with Spark** (Python, Google Cloud), CSCI 381 Cloud Computing, Queens College April 2022

- Deployed a Spark cluster on choice cloud provider through independent research.
- Worked through inaccurate official documentation to run pySpark tasks on Google Cloud VMs.

**TitleSkimmer** (Python, Tensorflow) Dec 2021

- Constructed a language processing web app using Scikit-Learn, Tensorflow, and Flask to categorize titles.
- Trained two different predictive models, one with multinomial bayes, one with neural networks.
- Performed data exploratory and cleaning on a dataset of over 200,000 entries.
- Presented the final product to 40+ attendees at Cuny Tech Prep Demo Night.

**ShortUrlScanner** (Javascript, Node.js) Dec 2020

- Created a Node.js server to scan potentially malicious URLs and return a shortened result URL for easy sharing.
- Incorporated the use of OAuth 2.0 APIs and caching to reduce excess api calls.
- Implemented request processing in Node.js to protect against improper usage.

## RELEVANT EXPERIENCE

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**BigSibTutors**

New York, NY

Operations and Automation Manager

Aug 2022 - Present

- Developed 5+ different automated scripts to increase efficiency in notifications and data processing.
- Managed design and content updates to the company website and Youtube channel.

**CUNY Tech Prep**

New York, NY

Fellow, Data Science

Jun 2021 - May 2022

- Learned Python 3, Jupyter Notebooks, Pandas, Numpy, Scikit-learn, SQL, exploratory data analysis (EDA), feature engineering, data collection and processing, statistical modeling, data visualization, and ML techniques.

**QC Learning Commons, Queens College**

Queens, NY

Tutor, Databases

Mar 2021 - May 2021

- Acted as a technical resource for 100 + students in the course "Database systems" and held weekly office hours
- Recommended by professor to assist students through Zoom in their coursework for databases and using T-SQL