

# JIA MING (JIMMY) MA

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## EDUCATION

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### City College of New York (Grove School of Engineering)

BS Computer Science *GPA: 3.84*

**Honors:** Summa Cum Laude, Dean's List

New York, NY

Sep 2017 - Dec 2021

## TECHNICAL SKILLS

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Languages:	JavaScript/HTML/CSS, Python, Java, C++, NoSQL, SQL
Frameworks and Libraries:	React, Node.js, Express.js, Jest, MongoDB, PostgreSQL, Material UI, Redux
Tools:	GitHub, Docker, CI/CD, Slack, Heroku, Cloudflare, Figma, Postman

## PROJECTS

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### Snackies

<https://snackies.xyz>

- Designed a snack focused e-commerce website which has a rich user experience, mobile-friendly responsive UI and fully functional back-end compatibility
- Built the UI using **React Hooks**, implemented state management using **Redux**, and styled using **Material UI**
- Integrated **Stripe's API** to securely verify payment data, and accept payments upon customer check out
- Implemented the login authentication using JWT stored as cookie along with **Google OAuth** login
- Stored user and item data in **MongoDB** cluster via the **Mongoose ODM**, and created REST API with **Express** routing all in **Node.js**

### Pathfinding Visualizer

<https://www.jiamingma.me/Pathfinding-Visualization/>

- Implemented an interactive website that visualizes and teaches the behaviors of various pathfinding algorithms
- The algorithms covered are Dijkstra's Algorithm, A\* Search, Breath-First Search, Depth-First Search, and Bidirectional Search
- Developed locally with **Docker** containers using bind mounts by building images with a Dockerfile
- Built a **CI/CD** pipeline with GitHub Action to run **Jest** tests upon any push/pull-request and will automatically deploy website and push new image to DockerHub on success

### Smallify

<https://url-shortener-fun.herokuapp.com>

- Administered a team of 2 people to create a link shortener app, which provided users with a permanent link to their destination URL in a matter of a few milliseconds
- Integrated a bijective algorithm to generate unique shortened links for every link without collision

### MTA Tracker

<https://simplemta.xyz>

- Modernized the NYC transportation system for 5+ million New Yorkers by providing a website in which people can receive information about the 472 train stations, and their train arrival times
- Designed an extensive REST API using **Express.js**, and managed the database using **PostgreSQL** in **Node.js**
- Collaborated in a team of 3 using **Scrum (Agile)** with constant stand ups, code reviews and feature updates

## SUPPORTING EXPERIENCE

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### CUNY Tech Prep

*Software Developer Student*

New York, NY

Jun 2020 - Jun 2021

- Learned technologies like React, Node.js, Express.js, and PostgreSQL
- Instructed on the best industry practices for design, implementation and development using MVC, VC with GitHub, etc.

### Business Technology Early College High School

*IT Consultant*

Queen's Village, NY

Sep 2020 - Dec 2020

- Maintained upkeep of 5 computer labs and 200+ laptops for the reopening of the school during COVID19 to ensure technology availability for returning students