Tiancheng (Marco) Qin

617-840-2326 tqin@brandeis.edu www.linkedin.com/in/marco-qin-2024/

Education

Brandeis University **May 2024**
B.S. in Computer Science & Mathematics, GPA 3.8, Computer Security TA, Aviation Club, Student DJ Waltham, MA

Skills

Programming Languages: Python, Java, TypeScript, Golang, Ruby, C#, SQL, JavaScript, Solidity.
Technical: Agile, Scrum, Distributed Systems, Kubernetes, Git, React, Node.js, Rails, Numpy, PyTorch, TensorFlow.
Software: Azure, Jira, Trello, Notion, Copilot, Figma, PowerPoint, Excel, PowerBI, Unity.

Work Experience

Machine Learning Education funded by NSF **September 2023 – Present**
Research Assistant Waltham, MA

- Researched and developed easy-to-understand Machine Learning materials by using visualization tools for National Science Foundation-funded project to develop high school AI educational material.
- Collaborating closely with academic staff to evaluate and implement best practices in visualizing Convolutional Neural Networks, drawing upon cutting-edge research and existing platforms.

UBS **June 2023 – August 2023**
Software Engineer Intern - Technology Summer Analyst Weehawken, NJ

- Spearheaded the development of secure file transfer system as the acting product owner, conceptualizing and implementing Azure functions in TypeScript to store data with unique fingerprints in Blob Storage. Deployed using GitLab CI-CD Pipeline and Kubernetes
- Proactively identified and reported critical security vulnerabilities in the team's existing encryption method; conducted thorough research and recommended modern encryption practices, catalyzing an multi-team-wide security overhaul.
- Created an AI chatbot using OpenAI API and fine-tuned using Semantic Kernel, showcased to AI developers, product owners in the US, UK, Singapore, and Poland office, won first place in intern challenge.
- Constructed and presented an interactive guide on Azure Storage Solutions, designed to aid developers in making informed decisions about their storage options, currently being considered for publication on the official UBS website.

Global AI Investment **June 2022 – August 2022**
Machine Learning Intern Wall Street, NYC

- Analyzed SDG, stock, and fashion item prices data using Pandas, applied time series analysis, clustering, classification and other ML techniques and conducted 5 reports to identify trends in S&P 500 stocks.
- Used Pandas to get 10 years of historical daily time series data for the S&P500 stocks, merged the financial time series data with the SDG time series scores data, identified trends of Twitter stock price in regards to the SDG index.

Research and Leadership Projects

Sensory Augmentation Sponsored by NASA | Research Contributor **November 2022 – Present**

- Composed research onwith researchers sponsored by NASA spacial orientation and sensory augmentation with wearable sensors and vibrotactors, admitted to NASA Conference Feburary 2024.
- Conducted reviews on over 100 publications and created 7+ iterations of Arduino sensors, increased accuracy by 30%.

HyperEdge | Founding Engineer **October 2022 – Present**

- Participated in the Stanford Blockchain Accelerator (cohort 3), received Y-Combinator offer.
- Embedded AI-driven chatbot that auto-compiles code using Lang-chain and tokenization of documentations.

Chasing Stars App | Co-Founder, Algorithm Developer, Co-CEO **September 2022 – Present**

- Alumnus of Masschallenge Early Stage (accepted out of 3000 applicants), coordinated the two marketing members and three developers, won Third place in Spark Startup Competition.
- Implemented an algorithm to calculate the visibility of stars using light pollution API, weather API, etc, constructed a web app with Ruby on Rails, developed a landing page which generated 60+ traffic in the first month.

Branda App | President, Full-Stack Developer **October 2021 – Present**

- Managing the only campus-certified app, overseeing a team of 34 developers and marketing members, facilitating communication between front-end and back-end app developers by scheduling meetings, and setting deadlines.
- Increased app usage by 20% during the first 2 months by deleting underutilized features.

Honors and Awards

HackHarvard | Fourth Place Judge's Favorite **October 2023**

- Led and managed a multidisciplinary team to address the critical issue of health disparities among low-income families due to lack of access to fresh produce. Developed an innovative solution to connect these families with local farmers, optimizing storage and distribution. Spearheaded the backend and frontend development of an application that utilized Computer-Aided Design (CAD) for drone visualization and Google Cloud's Computer Vision for enhanced speed and accuracy in processing.

HackMIT | Top 10 Finalist **September 2023**

- Engineered an AI-driven wearable for elderly care, reached top 10 finalist in the healthcare track amongst 1000+ attendees

Spark Startup Competition | Third Place **April 2023**

- Coordinated 2 marketing members and 3 developers, presented in front of 200+ investors and alumni.

Asper Pitch Summit | Second Place **March 2023**

- Competed with 30+ business school students, proposed a VR solution to promote sustainability in fashion industries.

DeisHack Hackathon | Highest Organizational Impact Prize **February 2023**

- Won against 200+ students, led 4 teammates in different domains and built an educational platform for de-facto orphans.