Miffy Chen

Software Engineer
Full-Stack Developer

mchen15@bu.edu
425-246-3718
miffychen.tech

EDUCATION

BOSTON UNIVERSITY (Boston, MA)

MASTER OF SCIENCE IN COMPUTER SCIENCE | GPA: 4.0 / 4.0 — Sept 2017 – May 2020

- Data Structures • Analysis of Algorithms • Computer Networks • Computer Architecture • Operating Systems
- Adv. Programming Techniques • Software Engineering • Software Quality, Testing, & Security Management

BACHELOR OF ARTS IN PSYCHOLOGICAL & BRAIN SCIENCE — Sept 2011 – May 2015

TECHNICAL SKILLS

LANGUAGES
Java, C++, C, C#, Python, JavaScript, CSS, SCSS

FRAMEWORKS
React.js, Vue.js, Node.js, Spring-Boot

TOOLS / CLOUD PLATFORMS & SERVICES
Git, GitHub, Postman, Insomnia, Firebase, Amazon Web Services, Google Cloud, MS Azure

PROFESSIONAL EXPERIENCE

AWS TECHNICAL INTERN @ Amazon (Boston Seaport) — June – Aug, 2019

- Revamped an internal tool (classified) using AWS services: **S3**, **Amplify**, **SSO**, **Cognito**, **WAF & Shield**, **API Gateway**, **Lambda**, **SNS**, **CodeBuild**, **CodeCommit**, **CodePipeline**, **DynamoDB**, **CloudWatch**, **CloudTrail**, and **CloudFormation**.

SOFTWARE ENGINEERING INTERN @ BrainCo Tech — Mar – May, 2019

- A "brain robotics" company focused on the practical usages of EEG headbands in training focus and relaxation for students and athletes, as well as reinventing AI-powered prosthetic arms for amputees.
- Created cross-platform games / exercises in **React.js** and **Node.js** built on **Electron.js**.
- Coordinated with the design team in drafting and implementing UI/UX mockup designs.
- Updated the company website with **Vue.js**.

TEACHING ASSISTANT @ Boston University — Sept 2019 – Current

- Served as a grader in **Computer Networks** and **Operating Systems** to Professor John Day, an internet pioneer involved in the development of the ARPANET as well as creation of the OSI model.

HACKATHONS

TECHTOGETHER @ Boston University | *Winner of Microsoft Azure Champ Challenge* | Mar 15 – 17, 2019

- Built a ChatBot web app that checks up on grandparents (elderly) acting as a concerned grandchild, identifies early-on the potential health symptoms they may be exhibiting, encourages them to lead an active lifestyle, and stays connected to their families through help of social media.
- Project created with **Node.js** and **EJS**, hosted using **Azure's Web App** and **DevOps** services, connected to **GitHub** repository with a **CI/CD pipeline** on Azure.
- Created 3D facial scans as stand-in grandchild during conversations using Apple's **ARKit** and **CoreML**.

HACK(H)ER413 @ UMass Amherst | *Winner of Best Use of Google Cloud Platform* | Feb 09 – 10, 2019

- Built a **Machine Learning Model** that identifies breed combinations of mix-bred dogs and cats to help raise adoption rates in animal shelters using **Google Cloud AutoML Vision**. Achieved an accuracy rate of 97.04% with the custom-trained model, a 3.259% improvement from using the pre-trained model of **Google Cloud Vision API**.
- Built a web UI with **REST API** that executes **Serverless Application Scripts** stored on **Google Cloud Functions**.

GOOGLE CLOUD & NCAA® HACKATHON @ MIT Media Lab — Jan 26, 2019

- Built a machine learning model that identifies winning patterns of every NCAA basketball team in relation to game time using **Python**, **Keras**, and **TensorFlow**, and predicts favorable win conditions against different teams.
- Identified key event variables from basketball game logs over the past 10 years, such as turnovers, steals, blocks, etc., using **BigQuery** and **Data Studio** on **Google Cloud**. Collaborated with a team of 4 others using **Google Colab**.

○ MLH Local Hack Day @ BostonHacks — Dec 01, 2018

- Built a dating app and web service modeled after Tinder that matches users based on music currently listening to or song selected using **Spotify's API**, with optional features for text messaging using **Firebase**, and voice calling using **VoIP**, after matching. Written with **Bootstrap** and **Android Studio**.

PROJECTS

○ Trio (3-in-1 Project Management Tool) — 2019

- Built a website for project management using **Vue.js**, powered by **Spring-Boot** and **Maven**, with **MySQL** & **Firebase** as database, and **Firebase** for authentication through **email**, **Google**, **Facebook**, and **GitHub**; hosted on **AWS.**
- Components include: PM dashboard, real-time cloud messaging, email alerts, version control, and issue tracker.

○ CPU Scheduling Simulator — 2018

- Created an interactive **GUI** using **Java Swing** and **JavaFX** that simulates tasks scheduling as handled by the CPU.
- Displayed results in Gantt Charts, with option to save or import numeric datasets using **MySQL** as database.
- Algorithms implemented included: FCFS, Pre-emptive SJF, Lottery, Round-Robin, and Multi-level Priority Queues.

○ Raspberry Pi Alexa (DIY Amazon Echo) — 2018

- Converted the **Raspberry Pi** into a functioning Echo Dot by using the **Alexa Voice Service (AVS)** library on **Amazon Web Services (AWS)**.

○ Raspberry Pi Surveillance Cam + Web Server — 2018

- Built a surveillance camera using the **Raspberry Pi 3** motherboard in **Raspbian OS**, hooked up to a custom web server set up using **SSH**, with configurable settings through an **Android** device.