MATTHEW **CHEN**

Greater Houston Area (willing to relocate), Texas · 713-598-8980
mattokc35@gmail.com, https://github.com/mattokc35

Software Engineer with ~1.5 years of total experience, with experience in full-stack development (front-end focused), cloud computing technology, and machine learning. Seeking full-time software engineer positions. Also with experience working in agile development environments.

EDUCATION

AUGUST 2018 TO MAY 2022

Computer Science (B.S.) TEXAS A&M UNIVERSITY (College Station, Texas)

- 2018 PSAT National Merit Finalist 2018
- Texas A&M President's Endowed Scholarship
- 2018 Texas A&M National Merit Recognition Award
- GPA: 3.5/4.0
- Engineering Honors Program (2018-2019)
- Relevant Coursework: Data Structures and Algorithms (CSCE 221), Computer Organization (CSCE 312), Discrete Structures for Computing (CSCE 222), Operating Systems (CSCE 313), Design and Analysis of Algorithms (CSCE 411)

SIDE PROJECTS

JULY 2023 TO DECEMBER 2023

SHORT TERM RENTAL DIRECT-BOOKING SITE (React, Node, Express, EC2)

- Built full-stack React/Express direct booking site for a short-term rental (Airbnb)
- Utilizing Netlify/Render for hosting services, as well as AWS EC2
- Stripe API for payment and ID verification, Pricelabs API for pricing, and eSignature.io for contract generation, redux/router
- Bootstrap 5 CSS Framework
- **https://github.com/mattokc35/ShortTermRentalSite**
- https://sapphirebytheseatx.com/

JUNE 2023 TO SEPTEMBER 2023

AIRBNB SEARCH AND SCRAPER (Python)

- Python program will run Airbnb searches and find your listing, scrapes data about your listing and other listings in the search and outputs them to a CSV file
- **https://github.com/mattokc35/AirbnbScrapeAndSearcher**

WORK EXPERIENCE

JUNE 2023 TO PRESENT

Software Engineer, Aspen Technologies (Houston, Texas)

- **Dataworks Visualization Team (React, Vue, Javascript, Java)**
  - Helping to modernize legacy technologies and frameworks by modernizing codebase and products, rewriting frontend application in React (Router, Redux, Portals)
  - Fixing bugs and building components in a web-based graphics app written in Vue.js/Typescript
  - Automated testing with NightwatchJS
  - Agile development environment, Perforce source control

AUGUST 2022 TO JUNE 2023

Software Developer, IBM (Austin, Texas)

- **Secure Landing Zone (React, Javascript, Terraform)**
  - Worked on the Terraform-based Cloud Infrastructure-as-Code automation project Secure Landing Zone (SLZ)
  - Used React, Carbon, and Javascript to build, maintain, test, and debug components/forms of the UI, as well as backend components of the JSON
  - Wrote unit-tests with Mocha, acceptance testing using internally built testing framework TFXJS, contributed to public TFXJS repository, https://github.com/IBM/tfxjs
  - Assisted with Terraform debugging of SLZ
  - Open-sourced the custom React UI components developed for the project here:
    https://github.com/IBM/icse-react-assets
  - **Project successfully reduced client onboarding time from ~7 weeks down to 1 week**
- **Incident Accuracy Reporting System Team (Python, Agile Scrum Master)**
  - Served as Team Leader and Scrum Master for IARS, responsibilities: leading and scheduling meetings, creating and assigning tasks/distributing work, facilitating communication between team and technical mentors/sponsors of the project
  - Team implemented audio comparison algorithm in Python (spectrogram audio hash comparison)
- **Client Engagements**
  - Worked in ongoing engagements with multiple Fortune 500 clients
  - Co-hosted weekly meetings, during which we provided solutions to the client on their requests with various IBM Cloud technologies, including Cloud Automation with Terraform, Schematics and Blueprints, Red Hat Openshift and Kubernetes, Cloud Object Storage on both Classic and PaaS

Software Developer Intern, IBM (Remote)

• PlasticNet Project (Python)

• Helped to initiate and implement IBM Space Tech's PlasticNet -> an open-source deep learning object detection machine learning project dedicated to detecting and identifying different types of plastic/trash in the ocean on real-time video, and images
• Using Darknet YOLOv4 and Tensorflow architectures, continuously trained and tested new PlasticNet object detection models using transfer learning via pretrained models such as Faster-RCNN, Efficient-DET, YOLOv4, etc.
• Built a fully functional **PlasticNet** machine learning pipeline (accessible through command line client) that can be easily used to train and test object detection models via transfer learning using publicly available pretrained models
• Provided a set of publicly available pre-trained PlasticNet models that can be utilized for future development and improvement via transfer learning
• Open-sourced project to the public for further development, **check out IBM Tech for Good PlasticNet open source project here: https://github.com/IBM/PlasticNet**

• CubeSat Website Project (Node.js, MongoDB, React, Python)

• Developed a "Join The Mission" publicity website for CubeSat, an IBM satellite launching in fall 2021

• ReactJS frontend and Python Flask Backend

SKILLS/TECHNOLOGIES

- Python
- Git/Github
- Perforce
- Javascript/TypeScript
- HTML
- CSS
- Vue
- React
- Redux
- Router
- AWS EC2
- Java
- Terraform/Infrastructure-as-Code
- Machine Learning/Deep Learning
- Linux Terminal

- Tensorflow
- Object Detection
- Keras
- Jupyter Notebook
- Google Colab
- Node
- Full-Stack Development
- Convolutional Neural Networks
- Unit Testing
- Object-Oriented Programming
- Functional Programming
- Kubernetes/RedHat Openshift
- Front-End Development