

# Matthew Chen

mattokc35@gmail.com | +1 713-598-8980

Portfolio Website: <https://matthewtchen.com>

[github](#) | [linkedin](#)

## EDUCATION

### Bachelor of Science - Computer Science

Texas A&M University, National Merit Scholar & President's Endowed Scholarship

August 2018 - May 2022

College Station, TX

## SKILLS

**Programming Languages** Javascript | Python | Java | C++ | Typescript | HCL

**Technologies** React | Redux | Vue | Node | Terraform | Next | Machine Learning | AWS | Kubernetes/Docker

## EXPERIENCE

### Aspen Technologies

June 2023 - Present

Houston, TX

Software Engineer, Dataworks Visualization Team

- Utilized React, Redux, Javascript, Node, Bootstrap, and Perforce to help modernize and rewrite legacy front-end frameworks and technologies
- Provided React.js-related guidance for other team members
- Fixed Vue.js and Typescript bugs in a Web-Based Graphics App
- Performed software testing with Nightwatch.js

### IBM

August 2022 - June 2023

Austin, TX

Software Developer, Cloud Engineering Team

- Used React, Javascript, Mocha, and Carbon to build, maintain, test, and debug UI components of an IBM Cloud infrastructure-as-code automation project
- Configured and provisioned Cloud Computing environments using Terraform and HCL
- Performed Acceptance Testing with internal tool TFXJS
- Open-sourced the custom React UI components developed for the project to IBM's public GitHub
- Project successfully reduced client onboarding time from 7 weeks down to 1-2 weeks**
- Served as *Team Lead* and *Scrum Master* for Incident Accuracy Reporting System project, team implemented audio comparison algorithm in Python (spectrogram audio hash comparison) for IBM New Developer Jumpstart Program
- In weekly client meetings, provided solutions to multiple Fortune 500 clients on their requests with various IBM Cloud technologies, including Cloud Automation with Terraform, Schematics and Blueprints, Red Hat Openshift

### IBM

May 2021 - August 2021

Austin, TX (remote)

Software Developer Intern, Space Tech Team

- Used Python and Tensorflow 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
- Built a PlasticNet machine learning pipeline (accessible through CLI) that can be easily used to train and test object detection models
- 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
- Open-sourced project to the public for further development, <https://github.com/IBM/PlasticNet>

## SIDE PROJECTS

### SapphireByTheSeaTX.com

July 2023 - January 2024

Houston, TX

Full Stack Developer

- Built an full-stack direct booking site for a short-term rental property. Allows guests to perform secure payments and bookings and also send inquiries to the landlord.
- Front and back-end development using React and Express (Node.js), respectively. Utilized Stripe API for Payment and ID Verification, Pricelabs API for price data
- Used Netlify and Render for hosting: <https://sapphirebytheseatx.com/>

### Airbnb Search and Scraper

February 2023 - June 2023

Houston, TX

Full Stack Developer

- Created a program in Python which will run Airbnb searches to find specific listings, then scrape data about these listings and output them to a CSV file

## PUBLICATIONS

- Matthew Chen, "PlasticNet: Saving the Ocean with Machine Learning," *IBM Cloud Blog*, Austin, TX, USA.