

Matthew Chen

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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

Software Engineer, Dataworks Visualization Team

Houston, TX

- 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

Software Developer, Cloud Engineering Team

Austin, TX

- 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

Software Developer Intern, Space Tech Team

Austin, TX (remote)

- 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

Full Stack Developer

Houston, TX

- 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

Full Stack Developer

Houston, TX

- 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.