

JUO-YANG CHEN

Atlanta, GA

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Education

Georgia Institute of Technology

August 2018 - May 2022

Bachelor of Science in Computer Science

GPA: 3.85/4.0

Master of Science in Computer Science

Expected Graduation: May 2024

Relevant Coursework: Data Structures, Graduate Algorithms, Artificial Intelligence, Machine Learning, Advanced Databases, Advanced Networks, OOP, Computer Animation

Experience

Viasat Inc.

May 2021 – Aug. 2021

Software and Data Engineer Intern

Carlsbad, California

- Implemented a JupyterLab Extension with **React** and **Typescript** that aggregates company datasets, models, and features, makes the data filterable based on a multitude of metrics, and integrates into the Machine Learning workflow.
- Completed backend integration with **RESTful APIs** and **PostgreSQL** in the model-view-adapter pattern by creating loosely coupled components capable of accommodating other forms of backend.
- Benchmarked the **Elyra** ML pipeline-interface by leveraging **docker containers**, setting up **Kubernetes clusters**, and presenting the pros and cons to potential users within the company (data scientists).

WeGrains Co.

May 2020 – Aug. 2020

Full Stack Software Engineer Intern

Taipei, Taiwan

- Developed a progressive web app for car parking systems that allows users to operate gates via their mobile device, saving approximately two hours a week in commuting time.
- Created front-end with **React** by utilizing **Redux**, the **Google Maps API**, and **Axios** to allow users to navigate easily by searching with an address or adding filters to show the desired information.
- Implemented back-end with **Node.js** to process user, parking lot, and manager data with processes such as authentication, filtering, and checking for validity of actions.
- Designed and set up a **MySQL** database to store user and parking lot data by structuring through an extensive **ER diagram** and deployed on **Heroku ClearDB**.

Projects

Historical Stock Tweet Sentiment Analysis | *Node.js, React, MongoDB, Netlify*

Jan. 2022 – May 2022

- Created a scalable system that allows users to easily track the overall historic sentiment of various companies on Twitter via both a RESTful API and an interactive web app.
- Utilized **Apache Spark** to process tweets (from the Twitter API) then stores stock sentiment and prices as a filterable unified time-series in **TimeScaleDB** after a Python cron job runs, which retrieves data for each ticker daily.
- Implemented comprehensive serverless functions with **Netlify** to quickly query different parameters.

Geoguesser Machine Learning Model | *Python, Keras, Scikit-learn*

Aug. 2020 – Dec. 2020

- Constructed a machine learning model that uses **convolutional neural networks (CNN)** to pinpoint the precise latitude and longitude given any Pittsburgh street image.
- Pre-processed the image dataset with **numpy** and **sklearn** by eliminating noisy input images from the dataset and normalizing the data for easier analysis.

HackGT Computer Vision Instrument | *JavaScript, HTML, CSS, OpenCV, Node.js*

Sept. 2019 – Oct. 2019

- Made a Guitar Hero style game that uses **OpenCV** to detect the position of one's mouth and fist, which determines volume and pitch, and scores the player based on accuracy, timing, and musicality.
- Laid out the game environment based on an additional program that separates the main vocal track from midi files.

Technical Skills

Languages: Python, JavaScript, Java, SQL, C++, HTML, CSS, Assembly

Developer Tools/Frameworks: Scikit-learn, Numpy, Docker, React, Redux, Unity, Node.js, Angular, Kubernetes, Git

Leadership / Extracurricular

Seoulstice Dance Team

Summer 2021 – Present

President

Georgia Institute of Technology

- Lead an elite college dance group by teaching choreography and dance fundamentals as well as organizing logistics.
- Awarded **first place** in the Atlanta k-pop dance competition.