## Chiche Tsai

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### **EDUCATION**

**Georgia Institute of Technology** 

Atlanta, GA

B.S. in Computer Science, Concentration: Intelligence and Info Internetworks, Cumulative GPA: 4.0/4.0

Jan 2020 - Dec 2022

**Purdue University** 

West Lafayette, IN

B.S. in Computer Science Honors, Cumulative GPA: 4.0/4.0

Jan 2019 - Dec 2019

## **EXPERIENCE**

## **Course Critique | Web App**

Atlanta, GA

GT Student Government Association - Information Technology Board

July 2021 - Present

- Collaborate with a team of 6 people to build a web app for Georgia Tech students to search overall GPA and grade distribution by course or professors with the integration of ratemyprofessors.com (React, Bootstrap, Material-UI)
- Build a web crawler to scrape ten-thousands of students' reviews from CIOS (Selenium, Amazon RDS, AWS Lambda)

#### 3drens | Startup

Taipei, Taiwan

Software Engineering Intern

Aug 2020 - July 2021

- Constructed an internal master app of a ridesharing service, Yoxi, utilized by over 300 system operators and call center agents (React, Redux, Bootstrap, SCSS and Material-UI framework)
- Cooperated with the back-end team of 3 people to develop payment APIs with token-based authentication used by over 25,000 users (Node Express.js, Sequelize ORM and Microsoft SQL Server, JSON Web Token)
- Boosted 20% traffic of the ridesharing website by helping search engine perfectly crawl and index using Linux Cron Job and microservices to periodically update sitemap for newest web pages and prerender JavaScript sites as a static HTML (SEO)
- Increased unit test coverage from 10% to 70% on both client and server side using Mocha, Chai, and Enzyme to enhance code reliability and stability
- Dockerized React app with Nginx for reverse proxy and utilized Kubernetes to orchestrate the deployment, scaling and management of containers on Azure Kubernetes Service (AKS)
- Applied Bitbucket and Jira for version control, CircleCI for CI/CD pipeline, and daily scrum meetings for Agile practices

# **PROJECTS**

#### **Proctor Creek Capstone Project**

Aug 2021

- Devised a web app that tracks environmental pollution with Proctor Creek in Atlanta using Angular and Angular Material for frontend, and Python Django and Google Firebase for backend
- Utilized GitHub for version control, ZenHub for agile project management, and Jenkins for CI/CD pipeline

## **Twitter Sentiment Analysis**

July 2020

- Implemented different machine learning models in Python for classifying/clustering the sentiment of tweets to track the sentimental trend during COVID-19 pandemic and obtained an accuracy of 83% on average
- Leveraged logistic regression, Support Vector Machine (SVM) and Naïve Bayes for supervised learning, and k-means for unsupervised learning

#### **Campus Food Truck App Development**

Jan 2020

 Built a web application that manages food truck information on campus using Vue.js for frontend and Spring Boot and MySQL for backend

# Indiana School for the Blind and Visually Impaired (ISBVI)

Sep 2019

- Created a magnifier iOS app in Swift to improve the visibility of visually impaired students in ISBVI.
- Implemented a text recognition feature using vision and CoreML model and obtained an average accuracy 86%

### RESEARCH

# **Prolonged Collective Sensing System (PECSS)**

Atlanta, GA

Research Assistant, Advisor: Professor Rosa I. Arriaga

Aug 2021 - Present

 Develop a Clinician-Facing Dashboard for the NSF funded project which aims to enhance clinical practices by leveraging datadriven approaches to build a computational toolkit for PTSD patients and clinicians

#### **INTERESTS / SKILLS**

**Interests:** Full Stack Development, Infrastructure, Human Computer Interaction, Machine Learning, Natural Language Processing **Languages**: Assembly, C, C++, CSS, HTML, Java, JavaScript, Python, Swift

Skills/Tools: React, Angular, Vue, Node.js, Django, Spring Boot, Nginx, Docker, Kubernetes, MySQL, MS SQL Server, MongoDB, Azure, AWS, Circle CI, Jenkins, Git, Linux, NPM, Postman, LaTeX