

# 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 with 3,000 daily users where Georgia Tech students can search overall GPA and grade distribution by courses/professors (React, Bootstrap, Material-UI, Recharts, Victory)
- Build a web crawler to scrape ten-thousands of students' reviews from CIOs (Selenium, Scrapy, Amazon RDS, AWS Lambda)

### 3drens | Startup

Taipei, Taiwan

*Software Engineer 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, Material-UI, Redux, Bootstrap, SCSS)
- Cooperated with two CTOs to develop payment APIs with token-based authentication used by over 25,000 users (Node, Express.js, Typescript, Sequelize ORM, Microsoft SQL Server, JSON Web Token)
- Boosted 20% traffic of the ridesharing website by helping search engines perfectly crawl writing a Linux shell script to periodically update sitemap for newest web pages and prerender JavaScript sites as a static HTML (SEO, Cron Job)
- Increased unit test coverage from 10% to 70% on both client and server side to enhance code reliability (Mocha, Chai, Enzyme)
- Dockerized React app with Nginx for reverse proxy and utilized Kubernetes to orchestrate the deployment, scaling and management of containers on Azure Kubernetes Service (load balance, microservice)
- 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 reporting system that tracks environmental pollution with Proctor Creek in Atlanta (React, Material-UI, Django, Firebase, GitHub, ZenHub, Jenkins)
- Implemented a notification system to notify users when report status is updated (SMTP)

### Twitter Sentiment Analysis

July 2020

- Implemented 4 machine learning models for classifying/clustering the sentiment of tweets to track the sentimental trend during the COVID-19 pandemic and obtained an accuracy of 83% on average (Python, Scikit-learn)
- Leveraged logistic regression, 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 (Vue, Vuetify, Spring Boot, MySQL)

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

Sep 2019

- Created a magnifier iOS app to improve the visibility of visually impaired students in ISBVI (Swift, CocoaPods)
- 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 Visualization Dashboard for the NSF funded project which aims to enhance clinical practices by leveraging data-driven approaches to build a computational toolkit for PTSD patients and clinicians (Angular, Angular Material)

## 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:** Angular, React, Vue, Typescript, Redux, Django, Spring Boot, Node, Nginx, Docker, Kubernetes, MS SQL Server, MySQL, MongoDB, Firebase, Redis, AWS, Azure, Circle CI, Jenkins, Git, Linux, NPM, Postman, LaTeX