## **JONATHAN TUNG**

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### **EDUCATION**

The University of Texas at Austin

**Texas Honors Computer Science Business** 

May 2023

GPA: 3.82

Bachelor of Science, Honors Computer Science
Bachelor of Business Administration, Business Honors

#### **EXPERIENCE**

Gentrifi GPS - Software Developer Intern; Allen TX

Summer 2021

- Restructured Critical Event Reporting backend/frontend to interface with MySQL Database using JSP and CSS
- Implemented live footage features by requesting continuous live footage packets using RESTful API
- Programmed Breadcrumb functionality to plot vehicle routes, detect idling, and display critical events
- Streamlined data collection at endpoint by parsing four JSON location packets simultaneously using Java Servlets

## Texas Convergent – Build Team; Austin, TX

Fall 2020 – Spring 2021

- Established a business model and value proposition for a mobile application connecting users and nonprofits
- Developed a front-end mobile UI using Figma and React Native

### **SKILLS**

Java, JavaScript, Python, C, C++, MySQL, HTML, CSS, JSP, RESTful API, Figma, Microsoft Excel, Canva, Latex

#### **ACADEMIC PROJECTS**

## Portfolio Modeling (Excel)

Summer 2021

- Analyzed beta correlations of individual stocks to the overall market under bullish/bearish conditions
- Built portfolios that take advantage of favorable beta correlations to improve overall performance
- Compared portfolio performance over time using Monte Carlo simulations to mitigate effects from return erosion

# Web Crawler & Search Engine (Java)

Fall 2020

- Built a web crawler that scanned a network of web pages and stored their contents in an efficient web index structure
- Constructed a query engine that parsed and interpreted queries, returning a list of relevant URLs

Tetris AI (Java) Fall 2020

- Designed a Tetris artificial intelligence system able to clear 8000+ lines
- Implemented a greedy algorithm that assigned all possible board states to a score weighted on maximum height, number of holes, and jaggedness

# **Discord Moderation Bot (Python)**

Fall 2020

- Developed a Discord bot that moderated server of 100+ users, reporting participants who disobey server guidelines
- Parsed user messages and cross-referenced with a dictionary of inappropriate speech

### **LEADERSHIP ACTIVITIES**

**Design for America** – *Publicity Coordinator* | *Voter Engagement;* Austin, TX

Fall 2020 - Present

- Organized field data collection of voter opinions and drafted a Figma that targeted stakeholder pain points
- Coordinated digital marketing through several social media platforms and the Moody College of Communication

# **Woodlawn Strings** – *Cofounder*

Fall 2016 – Spring 2020

• Founded a registered non-profit string ensemble and organized local performances at senior communities

#### **HONORS**

• University Honors Fall 2020 – Spring 2021

• Finalist, University of Houston Mathematics Competition (Statistics)

Spring 2019 - Spring 2020

• USA Computing Olympiad Silver Division

Fall 2019

• Semifinalist, National Economics Challenge | 1st Place, Texas Personal Finance Challenge

Spring 2018