

Tony Zhu



512-925-6961 | tonyzhu3141@gmail.com | /in/tonyzhu3141 | snickerton.github.io | devpost.com/tonyzhu3141

WORK EXPERIENCE

AMAZON | Software Engineer Intern

May 2020 – August 2020

- Worked with Devices Optimization Team to improve inventory prediction, forecasting during a volatile period of demand (COVID-19).
- Enabled batch submission functionality for the internal optimizer website (Ruby on Rails) by designing and creating RESTful Java APIs.
- Doubled (*at minimum*) possible throughput for optimization requests and improved overall demand planning productivity.

AMERICAN AIRLINES | Operations Research Intern

May 2019 – December 2019

- Applied data analytics techniques to visualize baggage routes, employee performance, and the user metrics of internal tools in Tableau.
- Implemented data cleaning and preprocessing for database entries with Python (pandas, pyodbc) and SQL (Teradata).
- Experimental development of machine learning models (SVM, random forests, etc.) to create predictive models

SCHNEIDER ELECTRIC | Software Engineer Intern

June 2018 – August 2018

- Developed a Microsoft HoloLens app to showcase three different Schneider Electric products in AR.
- Research and initiation of automation of company-wide product request system with Computer Vision, ML, and OCR.
- Tech stack: Unity, C# scripting, Visual Studio Team Services, .NET, OpenCV, Tesseract

CYCOP A.I. | Programming Intern and Playtester

June 2016 – August 2016

- Debugged and tested software products in a Scrum/Agile workflow environment.
- Programmed high level software in C# and CyL for company projects and products.

EDUCATION

Texas A&M University, College Station, TX | Aug. 2017 - May 2021

- B.S. in Electronic Systems Engineering Technology (Incomplete)
- Relevant Coursework: Data Structures and Algorithms, Discrete Mathematics, Introduction to Algorithms

Western Governor's University, Salt Lake City | Jan. – May 2021

- B.S. in Computer Science (Completed in 5 months)

PROJECTS

Random Forest Wine Recommender | WGU Capstone

May 2021

- Random Forest models and Principal Component Analysis to recommend wines based on desired tasting notes (e.g. "crisp, dry, plum").
- Trained on 130,000 professional wine reviews (user submitted Kaggle dataset), using multicore processing, one-hot encoding, PCA etc.
- Technologies used: Sklearn, Ray (parallel processing), Pandas, Numpy, Jupyter Notebook, Plotly, PyQt5, Pytrends, and PyInstaller.

Automated Flight Attendant | TamuHack

January 2019

- Won 2nd place in the American Airlines Challenge out of 100+ competing teams. Delegated team assignments while implementing an IoT server on a Raspberry Pi capable of sending POST requests via Flask.
- Created a self-driving trolley that dispensed beverages along flight aisles, working with a mechanical engineer and hardware specialist.

COMMUNITY

Project Management Chair, Aggie Coding Clubs | Dec. 2019 – May 2021

- Organize activities for 200 club members and mentor 12+ project group leaders in software engineering and leadership principals.

Hackathons

TamuHack 2020 (Student Judge) • Datathon 2019 • Twitchcon 2019 • HowdyHack 2019 • TamuHack 2019 (2nd Place) • TwitchCon 2018 (Winner, Runner Up Overall) • SXSW 2018 • TamuHack 2018 • HackTX 2018

SKILLS & CERTIFICATIONS

Software Engineering • Algorithms & Data Structures • Cloud Technologies • Microservices • Version Control • Software Development Cycles • CI/CD Pipeline • Unit & Integration Testing • Agile/SCRUM Methodologies • Game Development • Android

CompTIA Project+ • ITIL v4 Foundation (IT Service Management) • Lean Six Sigma Yellow Belt (ICYB)

TECHNOLOGIES

Languages

Python • Java • SQL • HTML/CSS • C++ • C# • Ruby

Tools

AWS • Git • Unity • Linux • Tableau • Jira • .NET

Others

JUnit, Mockito, RSpec, Ruby on Rails, React Native • Keras • Tensorflow • OpenCV • Tesseract OCR