

Tony Zhu



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WORK EXPERIENCE

AMAZON | Software Engineer Full-Time

July 2021 – Present

- Seller Central team – Internal reporting of financial events with any entity that sells anything on Amazon. Current work is to address legal compliance in different regions by updating system designs, infrastructure stacks, and modeling generic financial events.
- AWS Proficiencies include Cloudwatch, CloudFormation, Glue, Lambda, EC2, Athena, Kinesis, DDB, SNS, SQS and much more.

AMAZON | Software Engineer Intern

May 2020 – August 2020

- Worked on Devices Optimization to improve inventory planning and optimization 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 automating company-wide product request systems with Computer Vision, ML, and OCR.

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 Governors University, Salt Lake City | Jan. – May 2021

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

SKILLS & CERTIFICATIONS

Software Engineering • System Design • Microservice Architecture • Version Control • Software Development Cycles • CI/CD • Test-Driven Development • Algorithms and Data Structures • Agile/SCRUM • Restful APIs • Frontend and Backend Engineering • Distributed Systems • Task Orchestration • Game Development • Android

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

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 principles.

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

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