

TYLER CONGER

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EDUCATION

University of Alabama
Computer Science Masters of Science

Tuscaloosa, AL
August 2022 - May 2024

Northern Arizona University
Computer Science Bachelors of Science

Flagstaff, AZ
August 2017 - May 2021

- Minor in Mathematics and History
- President of the Association Computing Machinery (ACM) NAU Chapter

EXPERIENCE

Marsh Digital | Software Developer

Phoenix, AZ | July 2021 - August 2022

- Built and maintain full stack web based applications using TypeScript, Angular, and Tailwind CSS
- Wrote unit tests using JUnit to maintain code coverage, with modern tools like DataDog
- Developed scripts in Python and C used in the CI/CD pipeline build and deployment process
- Led a team initiative to implement modern web practices that were in agreement with Web Accessibility
- Created and reviewed pull requests using BitBucket, maintaining team code standards and practices
- Updated and identified various security vulnerabilities over 15 separate deployment applications
- Added and completed tasks assigned on Jira using agile methodology

NAU SICCS Lab | Research Intern

Flagstaff, AZ | January 2020 - December 2020

- Developed interactive chatbots using IBM Watson artificial intelligence tools to respond to tourism questions in Flagstaff
- Creation of a website that was used to host chatbots using PHP, HTML, and JavaScript
- Wrote Python scripts used in task automation, natural language processing, and data analysis

SKILLS

Programming Languages: Python, C, Java, JavaScript, TypeScript, R, MySQL
Libraries / Frameworks: React, Angular, ROS, Tailwind CSS
Tools / Platforms: Docker, VirtualBox, Comandline, Linux, Shell, Git, AWS

PROJECTS

Self Driving Go-Kart

ROS, Python, C/C++

- Worked on a team that developed a fully autonomous vehicle from the ground up, including creating specialty kart design with mounting system and points for computers and cameras
- Built in ROS a system for in-taking LiDAR camera data and output information to a ROS node
- Interpreted and LiDAR data and identify the roadway as well as any potential obstacles
- Created path planning algorithm with use of sensor data to identify driving path
- Processed pathway information with ROS node that controls driving capabilities (steering, gas, brakes)

Pooled Sample Testing | Link

Python, TypeScript, React, JSON, MongoDB

- Led a team that created a web based application for laboratory teams to increase processing speed of COVID samples, during the 2020 pandemic testing crisis
- Organized and held weekly meetings project client, and held multiple weekly scrum style team meetings
- Developed a system where users could create various groups, add users, and complete tests, with save data
- Created JSON data structures that were used in the saving and loading of data plates saved in the database
- Deployed application on AWS cloud (EC2 Instance) that used Ionic, Django and React libraries with associated MongoDB server

Operating System Simulator

C

- Programmed a simulated operating system that would process input commands in real time
- Written entirely from the ground up in C, using no outside libraries or functionality

CERTIFICATIONS AND PAPERS

- **Machine Learning Research** - Paper surveying various image processing techniques and machine learning algorithms used, focusing on self driving vehicles, facial recognition, and OCR
- **Network Research** - Researched the effect of various home construction materials on internet protocols such as TCP, FTPS, and HTTP.
- **Symposium Presentation** - Created poster presentation and gave talk to represent our work on the COVID sampling application created at the undergraduate symposium
- **Symposium Presentation** - Presented my work on conversational AI chatbot IBM Watson at UGRADS
- **ICAgile Certified (ICP)** - International Consortium for Agile, June 2022