

# TYLER CONGER

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## EDUCATION

### University of Alabama

Masters of Science in Computer Science

Tuscaloosa, AL

August 2022 - May 2024

- **Notable Courses:** Autonomous Vehicles, Data Science, Machine Learning, Computer Security

### Northern Arizona University

Bachelors of Science in Computer Science

Flagstaff, AZ

August 2017 - May 2021

- Minors in Mathematics and History
- President of the Association for Computing Machinery (ACM) NAU Chapter
- Presidential Leadership fellow 🏆; selected for year monthly long leadership course
- Computer Science Peer Mentor; helped first year computer science students adapt to college life
- **Notable Courses:** Data Analysis, Database Systems, Network Analysis, Advanced Web Development

## PROFESSIONAL EXPERIENCE

### Marsh McLennan | Software Developer

Phoenix, AZ | July 2021 - August 2022

- Deployed 5 web based applications and maintained 15 distinct applications using TypeScript, Angular, SpringBoot, and Tailwind CSS for companies such as Amazon, Tesla, Polestar, Liberty Mutual, and others
- Implemented tests using JUnit, ensuring at least 70% code coverage while leveraging tools such as DataDog
- Conceived Python scripts added CI/CD pipeline process for 3 applications using Jenkins
- Spearheaded a team initiative to implement modern web practices in agreement with Web Accessibility, to meet guidelines on 10 deployment applications and all future applications with WCAG 2.0 Standards
- Added and reviewed pull requests with BitBucket using Git, accomplishing daily tasks assigned through Jira and preserve and maintain code standards on a 10 member team
- Identified and then fixed security vulnerabilities over 15 separate deployment applications

### NAU SICCS Lab | Research Intern

Flagstaff, AZ | January 2020 - December 2020

- Designed 3 interactive chatbots using IBM Watson artificial intelligence tools with conversational flows
- Implemented website powered by PHP, HTML, and JavaScript that hosted 2 chatbots interacted with by over 180 study participants to research register usage in chatbots and natural language processing
- Engineered Python scripts for in task automation, natural language processing, and data analysis

## SKILLS

Programming Languages:	Python, C, Java, JavaScript, TypeScript, R, MySQL, PHP
Libraries / Frameworks:	React, Angular, Next.JS, ROS, Tailwind CSS, NodeJS, Pandas, Bootstrap
Tools / Platforms:	Docker, VirtualBox, Command-line, Linux, Shell, Git, AWS, JIRA, LaTeX

## PROJECTS

### Self Driving Go-Kart

ROS, Python, C/C++

- Team conceptualized and built a fully autonomous vehicle for the evGrand Prix 🏆
- Creation of speciality of kart design with custom wiring and mounting for computer and camera hardware, including an optional driver to utilize imitation learning techniques
- Built a system for in-taking LiDAR camera data and output information to a ROS node with python, also developed a system that processed LiDAR information to identify bounds of the roadway and an obstacle
- Interpreted pathway information with ROS node that controls driving capabilities (steering, gas, brakes)

### Pooled Sample Testing 🏆

Python, TypeScript, React, JSON, MongoDB

- Led a team that released a web based application for laboratory teams to increase processing speed of COVID test samples during the 2020 pandemic testing crisis
- Organized weekly meetings with project client, and held multiple weekly agile style team meetings
- Developed a system where users could create various groups, add users, and complete tests, allowing users to save data with a JSON data structure saved to a MongoDB server queried with SQL
- Deployed application on AWS cloud (EC2 Instance) that used Ionic, Django, and React libraries

### Operating System Simulator

C

- Designed and programmed a simulated operating system that processed input commands in real time, written entirely in C, from the ground up, with limited use of non-basic C functionality.

## CERTIFICATIONS AND PAPERS

**ML Image Processing Survey 🏆** - Investigated machine learning algorithms and image processing techniques in the context of self-driving vehicles, facial recognition, and OCR applications.

**Network Research 🏆** - Researched the performance impact of 4 widely utilized home construction materials on 3 common internet protocols; TCP, FTPS, and HTTP

**Symposium Presentation 🏆** - COVID sampling application and the effect it had in the laboratory environment. Improving testing speed and accuracy of group sample pooling

**Symposium Poster 🏆** - Analysis of register usage in conversational AI based chatbot platforms

**ICAgile Certified (ICP)** - International Consortium for Agile, June 2022