Zachary Collins

# Developer with 7 years of Programming Experience

- Fast and independent learner

- Tolerant and Flexible

- Eagle Scout (Troop 26)

# Contact information

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# Top Skills

- **Programming Languages :** Python |  PHP |  JS | Swift
- **Web Frameworks/Platforms :** Laravel, Dotnet
- **Mobile Frameworks :** SwiftUI
- **CMS :** Wordpress
- **DB's :** Mysql | MariaDB | Sqlite3
- **CI/CD** tools **:** Deploybot | Docker
- **Load testing :** K6

# Work Experience

Expert Ready, Tulsa OK, **Developer**, 09/19 - 10/20

- Designed and implemented an event processing system that eliminated monthly bugs and unified system management. The system provided an **80% reduction** in support tickets and a **traceable log** of events which aided development greatly.

- Developed a data generation tool to migrate data tables to **streamline** the customer's workflow. Streamlining reduced on-field table conversation and **minimized** user error.

- Migrated customers to new deployment environments. Learned and applied the **end-to-end process** of developing and deploying a web application from environment initialization to DNS configuration.

ITRS Group, Tulsa OK, **Intern**, 05/19 - 09/19

- Head of Global Strategy mentored me about product competition and the Gartner Magic Quadrant. Created "battle cards" comparing our product with competitors.

- Designed and implemented a Nagios compatible plugin for OP5 Monitor. utilizing command-line options and **comprehensive** exception handling.

- Created a scalable Docker stack implementing Nginx for **load balancing** containers running web servers.

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Samp Innovations, Tulsa OK, **Consultant**, 05/19 - 07/19

- Worked on a Dot Net website to create a web forms with client- side validation and inserted that data into an SQL database.

Oklahoma Aquarium, Jenks OK, **Consultant**, 02/19 - 06/19

- Designed and developed a mobile app for people touring the aquarium. Presented information about each fish through quizzes and prompts.

# Robotics Experience

2017 **Lead Programmer** for FTC team 11572

- Independently learned and applied control systems to **autonomously** complete challenges.

- Competed at the **world** level, against 70+ countries.

2018 Invited to MIT

- Completed a prerequisite programming/linux course and application and was invited based on merit.

- MIT Department leads and partnered technology corporations mentored us through various control systems and technologies. **Project based** learning allowed us to implement many of these technologies including: Event, State, and SLAM architectures, PID control and tuning, IMU, Lidar, and Stereoscopic cameras.

2019 - 2020 **Team Leader** and Lead **programmer** for FTC team 11572

- Lead a team of 10 to design and create a robot.

- Applied PID and State controllers which increased **response time** and code readability.

- Developed a **simulation environment** to test potential field controllers and overall autonomous system without the hardware.

- Competed at the **world** level again, against 70+ countries.

# Education

University of Tulsa, 2020 - Now

- Computer Science Degree

Tulsa Community College, 2018 - 2020

- General Education Courses

Home Educated 2007 - 2020

- High School Diploma