

Noah Zemlin

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Education

B.S. Computer Science, The University of Oklahoma. May 2020.

M.S. Computer Science, The University of Oklahoma. May 2021.

Electrical and Computer Engineering Minor. Mathematics Minor. GPA 4.0

Skills

Languages C, C++, C#, Python, Java, JavaScript, TypeScript, PHP, HTML/CSS, R, MATLAB

Technologies Linux, Git, Unity, Docker, nginx, ROS, npm/yarn, React, Keras, Maven, Eagle, KiCAD

Work Experience

Software Engineering Internship **SupplyPike - Fayetteville, AR (Summer 2019)**

- Worked with the machine learning team to improve existing models using Python and Keras.
- Developed a new service to scrape textual data using several social media APIs and performed natural language processing using TypeScript, NodeJS, and Docker.

Computer Science Tutoring **University of Oklahoma - Norman, OK (Aug 2017 to May 2019)**

- Helped freshmen and sophomore computer science students taking Intro to Programming and Data Structures to learn Java and C++ as well as the principles of those courses.

Involvement

Sooner Competitive Robotics **IGVC Team Captain (2019-2020) Software Team Lead (2016-2019)**

- IGVC Captain
 - Developed C++ firmware on STM32 microcontrollers for velocity and heading control that communicated with the main computer over UART.
 - Created a competition simulator for SCR robots using ROS and Unity in C#.
 - Developed vision detection of the lanes using OpenCV in Python that runs in real time.
- Software Lead for Mercury, Robomagellan, Sumobot teams
 - Led the design of software stacks for autonomous and teleoperated robots using a mix of ROS, Arduino, Raspberry Pi, Python, C++, and Java.
 - Developed a UDP networking system to control a teleoperated robot over the internet in Java. It delivered both control data from the driver and video feedback from the robot.
- Led the development of an open-source robotics library in C++ for Arduino that provides easy and intuitive classes for motors, PIDs, and more.

OU Game Developers Association **President (2018-2020) Web Master (2016-2018)**

- Developed the organization to better suit the needs of OU students by focusing on providing game development resources on our website and expanding the club into Discord.
- Led several workshops on game development in the Unity for beginners and intermediates including topics such as programming in C# and modeling in Blender.
- Developed several short game projects and used technologies such as virtual reality using an Oculus Rift.

OU Robotics Club **Vice President (2019-2020) Secretary (2018-2019)**

- Mentored dozens of students in robotics in skills such as programming, soldering, electrical design, 3d modeling, and 3d printing. Used Arduino, Inventor, and CURA to program, design, and print the robots.

Haunt the Union, Union Programming Board **Interactive App Lead (2019)**

- Developed an interactive mobile web app for use in a haunted house using TypeScript, React, and Socket.io.

Hacklahoma **Participant (Mar 2018, Feb 2019)**

- Developed an Android To-do list app with Instructure Canvas integration in Java (Top 10 2018)
- Developed an interactive bee-themed web game using JavaScript (Top 10 2019)