Tobi DeRuiter

214 Marsteller St Apt 6 ❖ West Lafayette, IN 47906 ❖ zachderuiter@gmail.com ❖ (402) 651-2523
My Website: tobi-deruiter.info

EDUCATION

Purdue University — **West Lafayette, IN**
BS, Computer Science & Robotics Engineering Technology, 3.50 GPA — *Expected Dec 2024*

EXPERIENCE

Coding Mind Academy — **West Lafayette, IN**
Computer Science Instructor — *July 2024 – Current*
- Organize, develop, and prepare a curriculum to instruct middle to high school students
- Teach courses covering how to structure and develop code to make a game using Python: Pygame

The Rush Market — **Omaha, NE**
Computer Science Intern — *May 2022 – Aug 2022*
- Researched Azure and TensorFlow machine intelligence for The Rush Market's inspection process
- Prototyped a web app on Heroku that uses Azure speech-to-text to enhance the inspection process
  - Implemented custom hashmap data structure to store and execute voice commands
- Developed back-end system to notify employees of a customer pick-up through text by implementing Twilio
- Researched and assisted in beginning development of computer vision to automate cycle counting/auditing

The Rush Market — **Omaha, NE**
Online Inspector — *May 2018 – July 2018, May 2021 – Aug 2021, May 2023 – Aug 2023*
- Inspected newly sourced returns for quality and condition to be represented online
- Validated product data attributing within back-end system for representation directly to the customer online

ACTIVITIES

Boiler Robotics Club (BRC) — **Purdue University, West Lafayette, IN**
BRC Mechanical Team Member — *August 2021 – December 2023*
- BRC builds a Mars rover each year that competes in the University Rover Challenge (URC)
- Working in a team to design, build, and program the robotic arm (used in retrieval and servicing in URC)
- Programming in ROS (Robot Operating System) to utilize inverse kinematics; Solidworks used for design

Fluid Power Club (FPC) — **Purdue University, West Lafayette, IN**
FPC Electronics Team Member — *August 2023 – Current*
- FPC designs and builds a bike to compete in the NFPA Fluid Power Vehicle Challenge each year
- Working in a team to design and build the electronics system to monitor and control the FPC bike
  - Monitoring system pressures and bike speed; Controlling pneumatic clutch with solenoids

SKILLS & INTERESTS

- **Specific Skills:** Coding: Python, Java, C, C++, C#, HTML, CSS; CAD (Autodesk & Solidworks); GD&T; 3D Printing; ROS (Robot Operating System); Raspberry Pi; Arduino; MS Office; Leadership; Teamwork; Communication; Problem Solving; Organization; Time Management; Public Speaking; Analysis; Strategic-Thinking; Linux
- **Interests**: Martial Arts; Climbing; Calisthenics; Gaming; Dungeons & Dragons; Space; Robotics; Computer Science; Artificial Intelligence; Machine Learning; Robot Arms; Automation