

TOBI DERUITER

Software and Robotics Engineer

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linkedin.com/in/tobi-deruiter ☆ Non-binary (they/them)

EDUCATION



BS, Computer Science: Software Engineering

Purdue University

GPA | 3.5 / 4.0

01/2021 - 12/2024

West Lafayette, IN



BS, Robotics Engineering Technology

Purdue University

GPA | 3.5 / 4.0

07/2020 - 12/2024

West Lafayette, IN



Semester Abroad

University of New South Wales

GPA | 3.4 / 4.0

01/2023 - 05/2023

Sydney, Australia

EXPERIENCE

Computer Science Instructor

Coding Mind Academy

Coding Mind Academy is a coding institution which uses project-based learning to guide students in undertaking practical projects.

- Prepare curriculum for 1-3 middle to high school students both online and in person
- Instruct 2-5 classes weekly covering beginner to intermediate levels
- Teach courses in C++, Python, and Python: Pygame

07/2024 - Present

West Lafayette, IN

Computer Science Intern

The Rush Market

The Rush Market sources online furniture returns for sustainable resale in its members based online marketplace.

- Prototyped a web app on Heroku with Azure speech-to-text for improving inspection processes at Rush Market
- Created a back-end system using Twilio to alert employees of customer pick-ups via text messages
- Researched and contributed to the initial stages of developing computer vision for automating cycle counting and auditing

05/2022 - 08/2022

Omaha, NE

Application Developer Intern

University of Nebraska at Omaha

UNO hosts a summer high school internship program to give innovative, hands-on experience in university labs.

- Developed a mobile app for iOS and Android using Unity within a team of 2 interns and a graduate student
- Implemented operations and animations using C# programming language
- Utilized Unity Game Engine for project development

05/2019 - 08/2019

Omaha, NE

ACTIVITIES

Fluid Power Club (FPC)

Purdue University

FPC designs and manufactures a bike to compete in the NFPA Fluid Power Vehicle Challenge each year

- Designed and implemented an electronics system in a team of 4 to monitor and control the FPC bike
- Researched and tested 4+ sensors and 2 controllers while adhering to NFPA standards and requirements

08/2023 - 05/2024

Boiler Robotics Club (BRC)

Purdue University

BRC works to construct a Mars rover to compete in the University Rover Challenge (URC)

- Designed, built, and programmed a robotic arm in a team of 5 to 6 students (for retrieval and servicing in URC)
- Programmed in Python, utilizing ROS (Robot Operating System) for inverse kinematics; Solidworks used for design

08/2021 - 12/2023

SKILLS & COURSEWORK

Skills

Python · Java · JavaScript · TypeScript · C · C++ · C# · HTML · CSS · Bash · 3D Printing · Android · Autodesk · Azure · Computer Vision · Firebase · Heroku · Linux · Machine Learning · Raspberry Pi · Twilio · Unity · Visual Studio · Node.JS · Express · Frontend · Backend · Full Stack · Robotic Operating System · TensorFlow · CAD · Solidworks · Autodesk · MS Office · Teamwork · Communication · Problem Solving · Organization · Time Management · Public Speaking · Analysis · Strategic Thinking · Presentations

Coursework

Operating Systems · Software Testing · Intro to the Analysis of Algorithms · Software Engineering I · Systems Programming · Data Mining & Machine Learning · Computer Architecture · Programming in C · Continuous System Analysis and Design · Intro to Robot Kinematics · Instrumentation and Data Acquisition Design · Automated Manufacturing Processes · Introduction to Robotics · Manufacturing Systems · Production Design and Specification

PASSIONS

🥋 Muay Thai

🏔️ Climbing

🎮 Video games

🎵 Music

🐉 Dungeons & Dragons