TOBI DERUITER

Software and Robotics Engineer

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

EDUCATION

BS, Computer Science & Robotics Engineering Technology
07/2020 - 12/2024

Purdue University
West Lafayette, IN

GPA | **3.5** / 4.0

Semester Abroad
01/2023 - 05/2023

University of New South Wales
Sydney, Australia

GPA | **3.4** / 4.0

EXPERIENCE

Computer Science Instructor
07/2024 - Present

Coding Mind Academy
West Lafayette, IN

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

Computer Science Intern
05/2022 - 08/2022

The Rush Market
Omaha, NE

The Rush Market is a startup company that allows customers to shop sustainably through furniture sourced from returns, overstocks, close-out sales, and more.

- 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

Application Developer Intern
05/2019 - 08/2019

University of Nebraska at Omaha
Omaha, NE

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

ACTIVITIES

Fluid Power Club (FPC)
08/2023 - 05/2024

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

Boiler Robotics Club (BRC)
08/2021 - 12/2023

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

SKILLS & COURSEWORK

Programming Languages

Python · Java · JavaScript · C   · C++ · C# ·
HTML · CSS · Bash

Skills

3D Printing · Android · Autodesk · Azure ·
Computer Vision · Firebase · Heroku · Linux ·
Machine Learning · Raspberry Pi · Twilio · Unity ·
Visual Studio · NodeJS · 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**