# ZACHARY TOBIAS DERUITER

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#### **EDUCATION**



01/2021 - 12/2024 BS, Computer Science: Software Engineering

**Purdue University** West Lafavette. IN

GPA | 3.5 / 4.0



BS, Robotics Engineering Technology

07/2020 - 12/2024 West Lafayette, IN **Purdue University** 

GPA | 3.5 / 4.0



Semester Abroad

University of New South Wales

GPA | 3.4 / 4.0

# **EXPERIENCE**

# Full Stack Developer

02/2025 - Present

01/2023 - 05/2023

Sydney, Australia

# Self Employed

Remote, USA

As a contractor, my focus is developing Full Stack websites for small businesses that include portfolios, request forms, and an admin page to manage product.

- · Develop frontend (React.js), backend (Node.js) and admin page (React.js) to upload, update, delete, and display business portfolios, products, and events
- Manage storage of product data and assets with effective utilization of databases (MongoDB, Cloudinary)
- · Implement website customization, newsletter, service request forms, automatic emails

## **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 sources online furniture returns for sustainable resale in its 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

## **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**

#### Skills

 $Python \cdot Java \cdot JavaScript \cdot TypeScript \cdot C \cdot$ 

C++ · C# · HTML · CSS · React · Golang ·

Kotlin · 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** 

## **INTERESTS**

🖋 Muay Thai

Climbing

Video games

Music

Dungeons & Dragons