Timothy Zhou

U.S. Citizen
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EDUCATION:

Purdue University - Honors College, West Lafayette IN - **GPA: 3.96** **May 2022**

- Bachelor of Science in Computer Engineering
- Certificates in Collaborative Leadership and Python Programming
- Member of Eta Kappa Nu (ECE Honors Society)

SKILLS:

Highly Proficient: Data Structures & Algorithms, Python, C, C++, SQL, PostgreSQL, Hadoop, Airflow, Presto, Git, REST APIs
Proficient: Object Oriented Programming, Scikit-learn, Java, JavaScript, Tensorflow, OpenCV, Flask, React.js, HTML/CSS
Working knowledge: AWS, PHP, Financial Applications, Circuit Design

WORK EXPERIENCE:

Computer Science Instructor: CodeConnects **Sep 2021 – Present**

- Teach high school students fundamentals of Computer Science
- Design my own curriculum teaching syntax, data structures, object-oriented programming, algorithms in Python

Data Engineer Intern: Facebook (Virtual) **May 2021 – Aug 2021**

- Introduced and implemented a framework that defines the first response-based metrics for Messenger
- Designed a data pipeline using FB internal tools that feeds into a responsive dashboard
- Analyzed the generated dataset and pioneered a new analysis framework that is actively leveraged in data reviews and product decisions

AI & Automation Intern: Siemens Financial Services (Virtual) **Jun 2020 – Aug 2020**

- Automated the data flow of credit approval documents using a full stack framework for 10,000+ deals
- Designed an SQL-driven analytics dashboard used by 30+ managers in production
- Interfaced with REST APIs (Salesforce CRM, SuperTrump, SharePoint) and Ratings database

Undergraduate Teaching Assistant: Purdue ECE **Jan 2020 - Present**

- Fall 2021: ECE 39595 (Object Oriented Programming in C++\Java)
- Spring 2021, Summer 2020: ECE 20875 (Python for Data Science)
- Fall 2020: ECE 368 (Data Structures & Algorithms)
- Spring 2020: ECE 264 (Advanced C Programming)

Software Engineering Intern: John Deere (Moline, IL) **May 2019 - Aug 2019**

- Designed an internal diagnostic tool to post-process big data and visually model inconsistencies in John Deere planter/air seeding products

SELECT PROJECTS/RESEARCH:

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- Developed a Flask App that utilizes the Spotify Web API to help users conveniently create playlists consisting of suggested songs that don't appear in any other existing playlists

"Coco" Detector

- Created my family's own dog monitor using the Tensorflow Object Detection API, Twilio Messaging API, and OpenCV
- Integrated detection with a Raspberry Pi and data collection with a PostgreSQL database

Undergraduate Researcher: Deep Reinforcement Learning with Transfer Learning

- Utilized OpenAI Gym and Torch to design a transfer learning algorithm for various training environments
- Leveraged pre-learned neural networks in Deep Deterministic Policy Gradient model

LEADERSHIP

Tech Committee Director: Purdue Student Engineering Foundation (PSEF): **Sep 2018 - Present**

- Lead Tech committee to implement technological solutions for outreach efforts and member development
- Pilot new virtual outreach platforms on website (70% increase in website interaction)
- Conduct weekly tours, panels, lunches with prospective students as Purdue's Engineering Tour Guide

Software Integration Engineer: FroYo Xpress (Student Run Entrepreneurial Business) **Mar 2019 - Present**

- Supervise integration efforts between the mechanical components and automation software design
- Develop data analysis tools and customer-facing Android Studio app for Stripe payment processing in kiosk