# Zachary Kouba

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## EDUCATION

**Purdue University, College of Engineering** – West Lafayette, IN *May 2025*
*Bachelor of Science, Computer Engineering* **GPA: 3.5/4.0**
*Concentration: Software Engineering*

- Relevant Coursework: Networks and Communication, Artificial Intelligence, Cybersecurity, Data Structures, Object-Oriented Programming, Microprocessor Systems and Interfacing, Digital System Design

## PROFESSIONAL EXPERIENCE

**US Bank** – Minneapolis, MN *Jun 2024 – Aug 2024*
*Software Engineering Intern*

- Designed a Go program to obtain secrets and connect to MSSQL database for data collection
- Restructured MSSQL data using Go program to import time-series data into InfluxDB
- Queried InfluxDB to obtain time series data for custom Grafana dashboards
- Automated IT ticket handling with Ansible and Python scripts to connect to network nodes and run diagnostics
- Deployed Ansible automations on AWX server leveraging on-prem cloud services

**Burns & McDonnell** – Chicago, IL *May 2023 – Aug 2023*
*Electrical and Controls Engineering Intern*

- Supported Global Facilities controls team through developing PLC code and HMI screens
- Pioneered API with Visual Basic for Applications (VBA) code to tether HMI screens to PLC code
- Contributed to on-site project to upgrade 35 control panels, 5 PLCs, and 20+ HMI screens
- Prepared Standard Operating Procedures for client review meetings
- Chose to schedule and coordinate internship volunteer event with team of 4 coworkers

**Christ Community Church** – Lemont, IL *Apr 2021 – Sep 2021*
*Technology and Communications Intern*

- Managed and scheduled a 15 person team to run audio, video and live stream services using Planning Center
- Utilized WordPress on a website to redesign and improve fluidity

## LEADERSHIP AND INVOLVEMENT

**IEEE – Purdue Aerial Robotics Team – Purdue** *Aug 2022 – Present*
*Software Team Member*

- Collaborating with other engineers of different disciplines to build and apply software utilizing Python and TensorFlow
- Formulating code to train and test machine learning models for an Unmanned Aerial Vehicle object identification system
- Running CI/CD Pipeline on object identification system to test for accuracy and coverage of use cases

**Machine Learning Club – Purdue** *Aug 2023 – Present*
*Member*

- Aiding in Python-based machine learning and artificial intelligence projects utilizing TensorFlow and PyTorch

**Smart Healthcare Milestone Class – Purdue** *Aug 2023 – May 2024*
*Teaching Assistant*

- Partnered with graduate student to implement new course plans for over 50 students
- Lead class through project to create an Electrocardiogram using LTspice and TinkerCAD
- Evaluated and provided feedback on weekly work submissions to foster an environment of open communication

**Engineering in the World of Data Community – Purdue** *Aug 2021 – May 2022*
*Member*

- Engaged with real world problems through Python for data analysis
- Reviewed data from a local zoo to analyze feeding patterns of snakes by parsing and sorting

## SKILLS & INTERESTS

**Programming Languages:** Python, C/C++, SQL, Go, Ansible, HTML/CSS/JavaScript, TypeScript
**Software Knowledge:** RESTful APIs, Docker, Git, GitLab, GitHub, Linux, AWX, AWS, Cloud Services, Vault, CI/CD, DevOps
**Certifications**: Entry-Level Programming in Python (Purdue), Programming with Arduino Workshop (Purdue), Smart Healthcare Workshop (Purdue)
**Interests:** Snow Skiing, Watersports, Catan, Sudoku, Traveling, Hiking, Football, Music Mixing, Personal Fitness