

# Garrett O'Brien

## EDUCATION

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**Purdue University**, *West Lafayette, IN*

**Expected May 2025**

Double Major in Computer Science and Mathematics

Concentration in Machine Learning; Management/Finance Minor

GPA: 3.51, (Last 2 years 3.79), Dean's List, ACT: 34

## SKILLS AND TOOLS

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Languages – Python, Java, Go, C, C++, HTML, JavaScript, SQL, Bash

Development Tools – GIT, GitHub, Vim, GDB, Agile, Figma, Grafana, Postman, Jenkins, WandB

Technologies – PyTorch, Spring, MongoDB, Cassandra, Kafka, Oracle, OpenShift, Kubernetes, AWS

## EXPERIENCE

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**Discover Financial Services** – Software Engineering Intern, *Riverwoods, IL*

**Jun 2024 – Present**

- Developed and implemented integration tests into Jenkins Pipeline to support testing for CICD.
- Used Go to detect issues with AWS S3 Object Storage provisions and ensure deployment health.
- Automated multi hour deployment sequence to 30-minute sequence using Helm and Kubernetes.

**Purdue University** – Undergraduate Researcher, *West Lafayette, IN*

**Jan 2024 – Present**

- Human-Centered Software Systems Lab under Zhi Tu and Dr. Tianyi Zhang working on deep learning. Developing new GNN architectures for medical-based classification.
- Current research focuses on combining meta-learning and learning under privileged information in both ANNs and GNNs using PyTorch.
- Project is supported by the Showalter Trust Research Award. Targeting ICLR.

**GE Aerospace** – Data Engineer Intern, *Cincinnati, OH*

**May 2023 – August 2023**

- *Digital Technology Leadership Program Intern.* Responsible for optimizing aircraft engine assembly reporting. Provided technical analysis of data flows to upgrade data pipeline by 10X.
- Utilized Python to work on data microservices. Wrote Python scripts to extract key data from test cell logs for engine performance reports. (Test Cell Advisor)

**Sigma Alpha Epsilon** – VP of Scholarship, *West Lafayette, IN*

**June 2022 – May 2023**

- Served on Executive Board of 120-member fraternity with over \$1M in annual budget.
- Oversaw academic performance for all members; exceeded GPA benchmarks by 20%.

## PROJECTS AND WORKING PAPERS

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**Enhancing Diabetes Screening Accuracy through Learning under Privileged Information.**

- Zhi Tu, Garrett O'Brien

**ADVSR** – <https://github.com/BoilerADVSR>

- Created a web app with a team in an Agile environment to assist Purdue students with scheduling and picking classes in Spring boot and Node.js using React and Java. Utilized RESTful APIs.
- Developed backend algorithm to suggest personalized class recommendations for students.

**Shell** – <https://github.com/garrettcobrien/shell>

- Built a feature-rich shell using C, C++, and language processing to incorporate advanced features like wildcarding, piping, and subshells for Unix based environments.