

# Walker Gollapudi

(317) 764-8819 | [wgollapudi@outlook.com](mailto:wgollapudi@outlook.com) | [linkedin.com/in/wgollapudi](https://www.linkedin.com/in/wgollapudi) | [github.com/wgollapudi](https://github.com/wgollapudi)

## EDUCATION

### Purdue University

*Bachelor of Science in Computer Science & Mathematics, Minor in Economics*

**GPA:** 3.92 / 4.00

West Lafayette, IN

May 2027

## EXPERIENCE

### CS 240 Development Teaching Assistant

*Purdue University*

Oct. 2024 – Present

West Lafayette, IN

- Collaborated with course leadership to design, write, and implement instructional materials for 700+ students.
- Authored homework assignments in LaTeX, developing program solutions and test modules in C.
- Optimized and managed Git-based assignment distribution and submission system as well as general course infrastructure, streamlining course operations.

### Software Engineering Apprenticeship

*Amazon Web Services - Amazon Open Source Contributor Initiative*

Oct. 2023 – Dec. 2023

Virtual

- Collaborated with AWS Principal Engineers on Amazon OpenSearch, contributing to the visualization dashboards through hands-on development and agile team practices.
- Delivered 100+ lines of code that were approved and deployed to production, strengthening OpenSearch's capabilities as an open-source data search and visualization tool.
- Gained proficiency in Git and GitHub, developing teamwork and communication skills through agile development cycles focused on iterative learning and software best practices.

### Machine Learning Research Intern

*NASA - Ames Research Center*

July 2023 – Aug. 2023

Mountain View, CA

- Contributed to ExoMiner, a deep learning model built to discover new exoplanets from Kepler and TESS data.
- Implemented specialized regularization techniques to mitigate overfitting, including Spatial Dropout and DropBlock.
- Integrated dropout-based uncertainty metrics to provide confidence metrics for each classification, enhancing ExoMiner's first-of-its-kind explainability feature.
- Collaborated with NASA engineers to rigorously test and benchmark ExoMiner's architecture, achieving significant gains in recall and precision over existing exoplanet classifiers.
- Research was published in the *Astrophysical Journal*, showcasing ExoMiner's validation of 301 new exoplanets.

## PROJECTS

### Personal Bytecode Compiler Project | C, Git

Sep. 2023 – Present

- Developed a multi-pass bytecode compiler, learning from "Crafting Interpreters" and the "Dragon Book" to implement a custom language from scratch.
- Designed core components, including a custom garbage collector and symbol table for effective memory management and identifier resolution.
- Leveraged recursive parsing and custom-built data structures (e.g., hash tables, dynamic arrays) to optimize just-in-time execution.

## HONORS

### USA Computing Olympiad (USACO) Platinum Division Qualifier

Feb. 2023

*Ranked in the top 150 competitors in the nations most elite high school competitive programming competition.*

### 3rd Place, Varsity Public Forum – Indiana State Debate Tournament (ISSDA)

March 2022

*Placed 3rd at Indiana's statewide debate meet, demonstrating high-level rhetoric and communication skills.*

## TECHNICAL SKILLS

**Languages:** C/C++, Java, Python, Bash, JavaScript, TypeScript, OCaml, R

**Developer Tools:** Git, GitHub, UNIX, Docker, VS Code, Cloudflare, PyCharm, IntelliJ, LaTeX, Tpyst

**Libraries:** pandas, NumPy, tensorflow, keras, PyTorch, scikit-learn, tensorflow, seaborn, Matplotlib, OpenGL