

# Henry Lee

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## EDUCATION

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

GPA: 3.6/4.0

*Bachelor of Science, Major in Computer Science, Minor in Mathematics*

*August 2023 – Now*

### Relevant Coursework

- **Completed Coursework:** Object-Oriented Programming, Multivariate Calculus, Discrete Mathematics, Programming in C, Python Programming, Linear Algebra, Computer Architecture, Data Structures and Algorithms, Statistics for Data Science
- **Current Coursework:** Analysis of Algorithms, Numerical Methods

## PROJECTS

**Ticket Categorization** | *Python, ConnectWise API, Machine Learning, Rust, Classification*

April 2025 - Now

- Utilizing different machine learning models to classify sub-sections of various tickets
- Collecting a dataset of over 700,000+ tickets via the ConnectWise API to train the models via Rust
- Identifying different approaches to figure out how to automate the process of categorization

**Virtual Reality Cave Simulation** | *Unity Engine, LiDAR, Blender, VR*

January 2025 – May 2025

- Transformed a 10M+ point cloud dataset into an interactive 3D cave model for VR visualization
- Applied the Poisson Surface Reconstruction algorithm to convert LiDAR data into a detailed mesh
- Leveraged tools like CloudCompare, MeshLab, and Blender for mesh processing and optimization
- Developed a pipeline to convert point cloud data into VR-ready models for geoscience education

**Financial Data Converter** | *Python, Tkinter, User-Interface, Excel, PyCharm*

September 2024 - March 2025

- Worked with Echopath LLC to develop a financial dashboard that displays financial trends
- Utilized Python to organize and structure financial information and framed it into a data framework
- Researched various methodologies to handle the information properly on a CSV file and to display them visually
- Developed a graphical user interface to allow a user to append new data with both CSV files and Excel files

## EXPERIENCE

**Software Engineering Intern**

October 2024 – Now

*Echopath LLC*

*Indianapolis, IN*

- Collaborated remotely with a software engineer on various development projects to enhance productivity
- Developed Python-based data processing solutions to structure, analyze, and visualize financial records
- Researched and implemented best practices for managing and maintaining a GitHub repository
- Contributed to software solutions that optimized workflows and improved data organization for the company

**Undergraduate Software Engineering Researcher**

August 2024 – December 2024

*Purdue University: The Data Mine*

*West Lafayette, IN*

- Collaborated with Concrete Engine to develop a console program for high-performance computing and AI
- Designed a customer data model using MongoDB and JavaScript to optimize database interactions
- Researched key features such as user authentication and efficient large-file transfers to Google Cloud Storage
- Collaborated in an Agile development environment, iterating on features and delivering consistent improvements

**Undergraduate Data Science Researcher**

January 2024 – May 2024

*Purdue University: The Data Mine*

*West Lafayette, IN*

- Collaborated with Wikimedia Deutschland to find mismatches between Wikimedia and other external sources
- Reported 900+ data mismatches with Python and SPARQL by checking Wikidata's data against external sources
- Utilized Rest APIs to access individual data values to compare different numerical attributes
- Documented disparities between Wikidata and other sources to feed the Wikidata Mismatch Finder

## TECHNICAL SKILLS

**Languages:** Java, Python, C/C++, JavaScript, HTML/CSS, R, Rust

**Frameworks:** React, Node.js, Next.js, JUnit, Bootstrap

**Developer Tools:** Git, Visual Studio Code, PyCharm, IntelliJ, Eclipse

**Databases:** MySQL, MongoDB

**Libraries:** pandas, NumPy, Matplotlib