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:** OOP, Multivariate Calculus, Discrete Mathematics, C Programming, Linear Algebra, Computer Architecture, Data Structures & Algorithms, Statistics for Data Science
- **Current Coursework:** Algorithms Analysis, Numerical Methods

Projects

Kirby's Flapventure | *Unity, C#, Game Physics, UI/UX, Animation* July 2025

- Developed a 2D side-scrolling platformer in Unity using modular C# scripts and prefab-based architecture
- Used Rigidbody2D and Collider2D for gravity, physics, and pixel-perfect collision detection
- Designed interactive UI, animated transitions, and score system using Unity Canvas and Animator
- Optimized game architecture through modular C# scripting and effective use of Unity's component-based design

Ticket Search Tool | *Python, Rust, Flask, SQL, ConnectWise API, CSV* April 2025 – August 2025

- Worked with Echopath LLC to create a web-based ticket note search platform powered by Flask and SQL
- Ingested and processed 700K+ tickets and 1M+ notes from the ConnectWise API using Rust and CSV pipelines
- Implemented robust SQL queries to support frequent search, insert, and deletion operations across ticket data
- Engineered advanced filtering for search by using factors such as author and resolution status to improve precision

Financial Data Dashboard | *Python, Tkinter, Excel, CSV, PyCharm* December 2024 - January 2025

- Worked with Echopath LLC to add files to a dashboard visualizing revenues, costs, assets, and expenses
- Engineered a Python application to structure and process 500+ rows of financial records from Excel and CSV files
- Implemented error handling and validation to ensure accurate parsing of diverse financial data formats
- Built a GUI to append and visualize financial data from CSV and Excel formats to improve workflow efficiency

Experience

Software Engineering Intern October 2024 – August 2025

Echopath LLC *Indianapolis, IN*

- Collaborated remotely with a senior engineer on internal tools to enhance operational efficiency
- Developed Python applications to automate workflows involving financial data and ticket processing
- Applied database normalization and indexing techniques to improve data integrity and query performance
- Delivered software solutions that streamlined daily operations and elevated data accessibility

Undergraduate Software Engineering Researcher August 2024 – December 2024

Purdue University: The Data Mine *West Lafayette, IN*

- Partnered with Concrete Engine to build a high-performance console program for AI and HPC workflows
- Engineered a customer data model with MongoDB and JavaScript to streamline data access and scalability
- Researched authentication methods and large-file transfer techniques for integration with Google Cloud Storage
- Contributed in an Agile environment, iterating on core features with biweekly deliverables and peer reviews

Undergraduate Data Science Researcher January 2024 – May 2024

Purdue University: The Data Mine *West Lafayette, IN*

- Partnered 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, MATLAB, C#
Frameworks: React, Node.js, Next.js, JUnit, Bootstrap, Flask
Developer Tools: Git, Visual Studio Code, PyCharm, IntelliJ, Eclipse, SQLite Studio
Databases: MySQL, MongoDB, SQLite
Libraries: pandas, numpy, matplotlib, scikit-learn