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

PROJECTS

Digit Classifier | *Python, NumPy, Matplotlib, scikit-learn, Jupyter Notebook, Flask* — July 2025

- Achieved 97%+ accuracy on MNIST by implementing and tuning a neural network with scikit-learn
- Built a Flask web app enabling real-time digit classification by converting user-drawn canvas input into model-ready data
- Streamlined dataset preprocessing and visualization with NumPy and Matplotlib, improving debugging efficiency

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

- Reduced ticket lookup time by 80% for Echopath LLC by building a Flask + SQL web platform to search 700K+ tickets and 1M+ notes
- Enabled near-instant queries by developing Rust-based ingestion pipelines and optimizing CSV processing
- Improved search accuracy by 50% by implementing advanced filters (author, resolution status) and optimizing SQL queries

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

- Automated processing of 500+ financial records, reducing manual reporting time by 60%
- Increased reliability by implementing validation and error handling for diverse Excel and CSV formats
- Built a Tkinter GUI to visualize and append financial data, streamlining workflows for non-technical users

EXPERIENCE

Software Engineering Intern — October 2024 – August 2025

Echopath LLC — *Indianapolis, IN*

- Automated financial and ticket workflows by developing Python applications, reducing processing time by 40%
- Improved database performance by applying normalization and indexing techniques, resulting in faster queries
- Delivered internal tools that increased operational efficiency and improved data accessibility for the engineering team

Undergraduate Software Engineering Researcher — August 2024 – December 2024

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

- Assisted in building a high-performance console program for AI/HPC workflows, reducing data retrieval time by 30%
- Designed a MongoDB-based data model to support scalable customer data access
- Researched features such as secure authentication and large-file transfer methods for integration with Google Cloud

Undergraduate Data Science Researcher — January 2024 – May 2024

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

- Detected and reported 900+ data mismatches between Wikidata and external sources using Python and SPARQL
- Improved data accuracy by integrating REST APIs to validate numerical attributes across datasets
- Contributed findings to the Wikidata Mismatch Finder, enhancing global data quality

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