

Christopher Lee

📞 925-860-9467 ✉ christopherhlee6@gmail.com 💼 [linkedin.com/clee140](https://www.linkedin.com/in/clee140) 🌐 <https://clee140.github.io/portfolio>

Education

Purdue University

May 2026

Bachelor of Science in Computer Science

West Lafayette, Indiana

- **Relevant Coursework:** Data Structures and Algorithms, Computer Architecture, Programming in C, Discrete Mathematics, Problem-Solving and Object-Oriented Programming, Linear Algebra, Multivariable Calculus
- **Certifications:** Machine Learning: AI, Python and R (Udemy) and Full-Stack Web Development (Udemy)
- **Awards:** Purdue Hello World Hackathon First Place, Dean's List, Semester Honors

Experience

Sandia National Laboratories - Purdue Data Mine

Aug 2024 – Present

Data Science Researcher

West Lafayette, Indiana

- Developing a robust model to reliably predict the final destination of a lost flight given a partial geospatial track.
- Leveraging Sandia's Tracktable cross-platform library for advanced trajectory analysis and visualization.

Purdue Vertically Integrated Projects

Jan 2024 – May 2024

Undergraduate Student Researcher

West Lafayette, Indiana

- Led the design and integration of a fully-connected neural network (fCNN) into an Android application for real-time traffic sign recognition with Prof. Edward J. Delp.
- Employed robust image preprocessing techniques including mean filtering and Sobel edge detection to improve input image quality and enhance recognition accuracy.
- Achieved a 96% classification accuracy by implementing forward and backward propagation processes with leaky ReLU activation, cross entropy loss, and gradient descent.
- Presented research and a live application demonstration at the 2024 Purdue Spring Undergraduate Conference.

Purdue University College of Engineering

Jan 2024 – May 2024

Software Engineer

West Lafayette, Indiana

- Developed and implemented software updates for a cross-platform mobile dictionary translation app.
- Led debugging efforts and resolved critical issues within the SQL database and app architecture.
- Improved user performance by 20% by designing and implementing a refreshed user interface.
- Conducted comprehensive end-to-end testing and enhanced existing documentation of the app.

Projects

SkySync | Swift, XCode, iOS App Development

- Led the development of an iOS mobile application enabling Wi-Fi-free conversation between devices via Bluetooth.
- Designed and integrated a suite of games, including Pictionary and Tic-Tac-Toe that use the integrated Bluetooth messaging functionality.
- Utilized Swift's Core Bluetooth and UI frameworks for robust functionality and a user-friendly interface.
- Secured 1st place out of 300+ participants at the prestigious Purdue Hello World Hackathon.

StudyBuddy | Java, Android Studio, Google ML Kit API, OpenAI API

- Developed a responsive Android mobile application that empowers users to create personalized flashcards.
- Leveraged Google ML Kit Text Recognition v2 API and OpenAI's GPT-3.5 model to automatically extract text from images and generate corresponding flashcards.
- Increased user engagement by developing intuitive image selection and customizable flashcard creation.

ReserVantage | Java, Client-Server Models, Concurrency, Graphical User Interfaces (GUI)

- Created a full-stack application that enables reservation booking and management for a two-sided marketplace.
- Implemented a robust client-server architecture, leveraging multithreading and file I/O to optimize data handling and enhance user experience.
- Designed comprehensive user interfaces using Java Swing, incorporating secure login and extensive user functionalities.

Technical Skills

Languages: Java, C, Python, JavaScript, HTML/CSS, Swift, R

Technologies: Android SDK, iOS SDK, React Native, Node.js, NumPy, Pandas, SQL, Git

Concepts: AI/ML, Neural Networks, Image Processing, APIs, Agile Methodology