

Christopher Lee

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Education

Purdue University

West Lafayette, Indiana

Bachelor of Science in Computer Science (GPA: 3.53/4.00)

May 2026

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

Experience

Sandia National Laboratories - Purdue Data Mine

Aug 2024 – Present

Data Science Researcher

West Lafayette, Indiana

- Built a machine learning model in Python to predict the destination of a missing flight from partial geospatial data.
- Reduced model testing time by 30% by automating data processing workflows with Python and Bash scripts.
- Facilitated regular team meetings to review model limitations and constructed 10+ test cases, resulting in a 20% improvement in model prediction accuracy.

Purdue Vertically Integrated Projects

Jan 2024 – May 2024

Undergraduate Student Researcher

West Lafayette, Indiana

- Developed a fully-connected neural network (fCNN) using Python and NumPy with Professor Edward J. Delp to recognize traffic signs in real-time.
- Achieved 96% classification accuracy by preprocessing input images with mean filtering and Sobel edge detection, and optimizing forward and backward propagation.
- Integrated the trained fCNN into an Android app, utilizing Python's Pickle library and a backend server to allow for efficient image processing and classification.
- Presented project to 20+ faculty and staff members at the 2024 Purdue Undergraduate Research Conference.

Purdue University College of Engineering

Jan 2024 – May 2024

Software Engineer

West Lafayette, Indiana

- Led end-to-end development and deployment of a cross-platform language-learning dictionary app, enhancing user experience by 25% through UI improvements in React Native.
- Reduced user response times by 20% by implementing a MySQL database and optimizing queries through indexing.
- Improved app documentation with UML diagrams to support future development and organized Agile meetings to strengthen team collaboration and work efficiency.

Projects

SkySync | Swift, XCode, iOS App Development, Git

- Created an iOS mobile application enabling Wi-Fi-free communication via Bluetooth with a range of 250+ feet.
- Cut message delivery speed by 2+ seconds using Apple's Core Bluetooth and Multipeer Connectivity frameworks for efficient data transmission.
- Project awarded first place out of 300+ participants at the prestigious Purdue Hello World Hackathon.

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

- Created an Android app to enable instant flashcard creation from photos, decreasing study prep time by 50%.
- Integrated Google ML Kit OCR for text extraction and OpenAI GPT-3.5 API for LLM-based flashcard generation, automating study material conversion for enhanced user efficiency.

ReserVantage | Java, Client-Server Models, Multithreading, Graphical User Interfaces (GUI), Agile Methodologies

- Designed a multi-user marketplace calendar in Java, boosting scheduling efficiency by 75%, and directed team discussions to ensure feature alignment with user needs.
- Built a scalable client-server model supporting up to 50+ concurrent users and file I/O for data management.

Technical Skills

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

Technologies: Linux, APIs, Android SDK, iOS SDK, React, Node.js, NumPy, Pandas, MySQL, Git, JUnit Testing

Expertise: Machine Learning, Neural Networks, App/Web Development, Image Processing, Agile Methodologies