Christopher Lee

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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 2023 Hello World Hackathon First Place, Dean's List, Semester Honors

Experience

Purdue Vertically Integrated Projects (VIP) 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 traffic sign 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 prestigious 2024 Purdue Spring Undergraduate Conference.

Purdue Engineering Projects in Community Service (EPICS) Jan 2024 – May 2024
Software Engineer *West Lafayette, Indiana*

- Developed and implemented software updates for the Marikadjy mobile dictionary app across both iOS and Android platforms.
- Led debugging efforts and resolved critical issues within the SQL database and app architecture.
- Improved user performance and satisfaction 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 Purdue 2023 Hello World Hackathon.

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

- Developed a user-friendly Android mobile application that empowers users to create personalized flashcards using their own images.
- 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 and knowledge retention through a user-friendly interface featuring intuitive image selection and customizable flashcard creation.

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

- Developed a full-stack web application reservation management system.
- Implemented a robust client-server architecture, leveraging multithreading and file I/O to optimize data handling and enhance user experience.
- Designed intuitive user interfaces using Java Swing, incorporating secure login and extensive user functionalities.

Technical Skills

Languages: C, Java, Python, Swift, JavaScript, HTML/CSS, R
Technologies: Android SDK, iOS SDK, React.js, Node.js, SQL, Git
Concepts: Artificial Intelligence, Machine Learning, Neural Networks, Image Processing, API, Agile Methodology