

Christopher Lee

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Education

Purdue University

Bachelor of Science in Computer Science (GPA: 3.5 / 4.00)

West Lafayette, Indiana

- **Relevant Coursework:** 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 2023 Hackathon First Place, Dean's List, Semester Honors

Experience

Purdue Vertically Integrated Projects (VIP)

Jan 2024 – May 2024

Undergraduate Student Researcher

West Lafayette, Indiana

- Designed and integrated a fully connected neural network architecture into a user-friendly Android application to identify common traffic signs under the guidance of Prof. Edward Delp.
- Utilized several image preprocessing techniques including mean filtering and Sobel edge detection to enhance the quality of the input image.
- Employed forward and backward propagation to iteratively update the weights and biases of the neural network, applying functions such as leaky ReLU and gradient descent to achieve a 96% classification accuracy.
- Showcased research and project at the 2024 Purdue Spring Undergraduate Conference.

Purdue Engineering Projects in Community Service (EPICS)

Jan 2024 – May 2024

Software Design Lead

West Lafayette, Indiana

- Created software updates for a native iOS and Android mobile dictionary application.
- Led and contributed to the debugging of the implemented SQL database and resolved app-related issues.
- Designed and implemented a refreshed interface to enhance user performance and satisfaction.
- Conducted thorough end-to-end testing of the application and ensured its readiness for publication to the Apple App Store.

Projects

SkySync | Swift, XCode

- Led the development of an iOS mobile application that allows users to quickly connect to another device and have a conversation over Bluetooth without wifi connection.
- Designed a suite of games including Pictionary and Tic-Tac-Toe that use the Bluetooth messaging functionality.
- Utilized Swift's Core Bluetooth and UI frameworks.
- Awarded 1st place out of 300+ participants in the Purdue 2023 Hello World Hackathon.

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

- Created a practical Android mobile application that generates personalized flashcards using a user's own images.
- Incorporated Optical Character Recognition (OCR) for text extraction from images and a Large Language Model (LLM) to produce the flashcards.
- Employed and implemented the Google ML Kit Text Recognition v2 framework in conjunction with an OpenAI GPT-3.5 model.

Sea It | Java, Android Studio, Google ML Kit API, Firebase

- Constructed an engaging Android image classification and social media application designed to educate and spread awareness on environment conservation.
- Optimized user experience with functional front-end login, camera, and home pages.
- Utilized the Google ML Kit Image Recognition API to identify images and Firebase framework to receive and process user data.

Technical Skills

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

Technologies: Android SDK, iOS SDK, React.js, Node.js, Bootstrap