Christian Barrett

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EDUCATION

University of Southern California | *Bachelor of Science*   **May 2023**
- GPA: 3.79 / 4.00
- Major: Computer Science; Minor: Mathematical Finance
- Related Coursework: Data Structures; Algorithms; Software Development; iOS App Dev; Intro to AI; Computer Systems; Operating Systems; Computer Architecture; Functional Programming; Programming GUIs; Capstone: Design of Large Software Systems

Illinois Mathematics and Science Academy   **June 2019**
- GPA: 3.96 / 4.00

EXPERIENCE

Epic Systems | *Software Developer*   **August 2023–Present**
- Designed and implemented a new payment management page for MyChart, allowing 200 million users to add, delete, and edit credit cards on their account and reducing customer service call volume at hospitals and clinics by up to 50%
- Worked with several customers on an optimal redesign for sharing access to billing accounts in MyChart
- Led fix-squad meetings by triaging bugs, aiding investigations, and offering solutions to broken code

Meta | *Software Engineering Intern*   **May 2022–August 2022**
- Designed and implemented notification controls for Messenger stories, improving the experience for millions of daily users and increasing engagement by 5%
- Personalized the Messenger "Add to Story" notification, increasing daily story posts by 5,000

Meta | *Software Engineering Intern*   **May 2021–August 2021**
- Implemented a new pipeline for advertisement attribution that serviced 10,000+ queries per second
- Created a framework for advertisement attribution that was reused by several other services
- Launched new rules to accurately predict attributions of aggregate data 95% of the time

PROJECTS

AI Voice Assistant   **March 2025**
- Created an AI registrar designed to answer phone calls at a clinic and schedule patients for visits
- Integrated Pipecat's open source AI pipeline with Deepgram STT, Cartesia TTS, and OpenAI's gpt-4o to create an end-to-end conversational voice agent
- Implemented function calling to store patient responses to a database

Snake Game AI   **May 2022–June 2022**
- Built a custom neural network using Deep Q-Learning to play "Snake" by learning from 20,000+ games
- Improved neural network performance by 20% by deploying a breadth-first search algorithm
- Recreated the classic "Snake" UI in Javascript to visualize the performance of the neural network

Multi Agent Path Finding   **November 2021**
- Implemented a time-space A* algorithm to compute shortest paths for agents in a shared environment
- Ensured a complete and optimal solution by deploying a conflict-based search algorithm

SKILLS

- *Programming Languages*: Typescript, Javascript, C#, Python, C++, Java, SQL, Swift, ObjC, C, OCaml
- *Tools/Frameworks:* React, REST APIs, FastAPI, NumPy, OpenCV, Firebase, Django, Git, SVN, Mercurial, Android Studio, XCode, Linux, VSCode, Visual Studio