

# 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

**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

**Covider App**

**January 2022–May 2022**

- Prototyped an android app to check covid-negative users into 100+ locations around university campus
- Developed an interactive map giving users a visual way to check in to locations around campus

**Multi Agent Path Finding**

**November 2021**

- Implemented a time-space A\* algorithm to efficiently compute shortest paths for multiple agents navigating a shared environment
- Improved the implementation by deploying a conflict-based search algorithm that ensures a complete and optimal solution

## SKILLS

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