

Kyle Phan

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EDUCATION

University of Notre Dame, Notre Dame, IN

Expected May 2025

Major and GPA: B.S. in Computer Science, 3.85

Relevant Courses: Systems Programming, Data Structures, Discrete Math, Video Game Development, Database Concepts, Theory of Computing, Operating Systems, Computer Architecture, Intro to AI

EXPERIENCE

iCapital

June 2023 – August 2023

Software Engineering Intern

- Built a full stack internal tool with **Ruby on Rails** and **React** that streamlines Rake task management by 300% for the entire development team, allows 400 internal users to manage database changes from a dashboard
- Designed and implemented a suite of **REST API endpoints**, managed code state with **Redux**, wrote **RSpec** unit tests to ensure validity of backend code, and designed Rake tasks to configure permissions in a relational database for specific users
- Created a scalable file storage system for over 300 files using **Amazon Web Services S3** to allow seamless access to files across multiple machines, ensuring data consistency within the distributed systems architecture
- Provided engineering guidance to UI/UX designers and product managers, which impacted the visual of the end product

Colonist.io

August 2022 – September 2022

Software Engineering Intern

- Built an internal DevOps tool that automatically deletes GitHub branches when pull requests are closed, used by entire team
- Edited UI/UX of game button and fixed various frontend bugs that 10,000+ users interacted with for Settlers of Catan Cities and Knights game mode with **TypeScript** and **CSS**

University of Notre Dame

August 2023 – Present

Data Structures Teaching Assistant

- Dedicate 10+ hours a week for office hours and assist students with homework challenges, taught in **C** and **Python**
- Create small group tutoring sessions within office hours that fostered an environment of collaboration among students

PROJECTS

Workout Guru | <https://workoutguru.onrender.com>

June 2022 – July 2022

- Launched a web application that allows users to craft personalized workouts by “swiping left” and “swiping right”, users also have access to a catalog of exercises that they can learn more about, 750+ unique users
- **HTML/CSS/JavaScript** frontend, **Python Django** backend, **PostgreSQL** database, and **AWS S3** for static file storage

Egyptian Ratslap | <https://simmer.io/@kphan5/egyptian-war>

March 2023

- Built an online version of Egyptian Ratslap in **C#** and **Unity**, utilized Unity prefabs to duplicate card objects, 750+ plays
- Designed a multiplayer version in local environment with **Photon**, a Unity framework for networking
- Took advantage of Unity coroutines to improve performance and implement bots that serves as the opposing player

Sol Solutions | Project: Horizon | <https://sol-solutions.vercel.app/>

March 2022

- Hackathon project with three other individuals that allow residents of Indiana to see how cost-efficient it is to switch to solar energy, lead frontend development and implemented a login form, connected requests to the backend with HTTP
- **HTML/CSS/JavaScript** frontend, **Python Flask** backend

LEADERSHIP

CS4Good

February 2023 – September 2023

Project Lead for BeFriendED

- Building a chatting feature using **Node.js**, **Express.js**, and **socket.io** along with a forum using **Django REST framework**
- Collaborated with 4 other team members, assisted in learning of **Django REST framework** throughout the project

SKILLS

Programming Languages: Python, HTML, CSS, JavaScript, C, MATLAB, TypeScript, C#, Swift, Ruby, SQL, C++

Frameworks: Django, Flask, Bootstrap, Express.js, React.js, Rails, TensorFlow, OpenCV

Misc: Amazon Web Services S3, Git, Node.js, MySQL, Unity, Jira, Kubernetes, Docker, Linux/Unix, Shell Scripting, Redis