

Kyle Phan

416 Knott Hall, Notre Dame, IN 46556 | (714)-715-7867 | kphan2@nd.edu | [LinkedIn](#) | [GitHub](#) | [kylephan5.github.io](#)

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, Logic Design, Programming for Video Game Development, Database Concepts, Theory of Computing, Operating Systems, Computer Architecture

EXPERIENCE

iCapital Network

June 2023 – August 2023

Software Engineering Intern

- Building a full stack internal tool with **Ruby on Rails** and **React** that streamlines Rake task management for the entire development team, allowing 400 internal users to manage database changes from a dashboard
- Designing and implementing a suite of **REST API endpoints**, managing state with **Redux**, utilize **Sidekiq** to run terminal commands asynchronously as background processes, and writing **RSpec** unit tests to ensure validity of backend code
- Writing Rake tasks to configure permissions and groups within a relational database and ensure that access is restricted to specific users
- Created a scalable file storage solution for over 300 files using **Amazon 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

Frontend Developer Intern

- Colonist.io is a popular online multiplayer game based on the board game Settlers of Catan, over 10,000 users daily
- Built an internal DevOps tool that automatically deletes GitHub branches when pull requests are closed, used by the entire team
- Edited UI/UX of game button and fixed various frontend bugs for 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 to holding office hours and assisting students with homework challenges for Data Structures course
- Creating small group tutoring sessions within office hours that fostered an environment of collaboration among students

Lab for Big Data Methodology

March 2022 – August 2022

Undergraduate Research Assistant

- Lab goal is to develop better statistical methods and software in the areas of education, management, health, and psychology
- Utilize **HTML/JavaScript** to create a better UI experience for an open-source web app that allows users to find trends between two objects

PROJECTS

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

June 2022 – July 2022

- Launched a web application that allows users to craft personalized workouts with a Tinder-inspired system to determine which exercises are added to the workout, users also have access to a catalog of exercises that they can do and learn more about, 500+ individual users
- Tech Stack: **HTML/CSS/JavaScript** frontend, **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, played 750+ times
- 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

Battle for LA | <https://kylephan5.github.io/battleforla>

August 2022

- Explored game development by designing a single player 2D basketball game where users control the LA Clippers
- Tech Stack: **JavaScript** full stack

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

March 2022

- Created a website with three other individuals that allow residents of Indiana to see how much it would save them to switch to solar energy based on their monthly electric bill and the number of solar panels desired
- Lead frontend development and implemented a login form, connected requests to the backend with HTTP requests
- Tech Stack: **HTML/CSS/JavaScript** frontend, **Flask** backend

ACTIVITIES

CS4Good

February 2023 - Present

Project Lead for BeFriendED

- Work with BeFriendED, a nonprofit dedicated to helping those struggling with eating disorders find a community
- 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** throughout the project

SKILLS

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

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

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