

Phillip Ly

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Education

University of California, Berkeley

Bachelor of Arts, Economics with Minor in Data Science

Berkeley, CA

Aug 2019 – Dec 2021

Coursework: Data Structures, Computer Architecture, Efficient Algorithms, Data Science, Databases, Discrete Math, Statistics/Probability, Econometrics, Full-Stack Development, User Interface Design and Development

Ohlone College

Associate in Arts, Economics

Fremont, CA

Aug 2016 – May 2019

Skills

Languages: Python, Java, HTML/CSS, JavaScript, SQL, R,

Frameworks/Tools: React, MaterialUI, Bootstrap, NodeJS, MongoDB, MySQL, NumPy, Pandas, Seaborn, Git/Github, Postman, Vercel, Figma, Latex

Projects

Hiking Trail Site (CalTrails) [Demo](#)

- Developed a web application that allows users to find hiking trails using reusable components with React
- Integrated interactive map interface with Google Maps API that fetches trail/weather API data based on users' latitude/longitude
- Improved site through UI/UX design principles, clustering of trails through location search/autocomplete, and flexible functionality for ensuring user authentication identity using Auth0
- Created and consumed REST APIs for storage of user-favorited hikes using Nodejs and NoSQL document store

Flower Power (2D-tile based game) [Code](#)

- Created a dungeon-based game where the player's main goal is to navigate through the randomly generated maze and collect flowers developed using Java
- Optimized efficiency for connecting rooms through concepts of pathfinding algorithm for minimum distance.
- Utilized object-oriented programming to represent characteristics of different types of rooms, behavior and storage of room coordinate position to prevent room collision and rendering of tiles over another.
- Included player interactivity with world using keyboard input and UI elements for informative/immersive gameplay

Gitlet [Code](#)

- Implemented a custom version control system that mimics git's storage system such as adding and removing files, tracking and committing file changes, merging, branching and status using Java
- Integrated various data structures to allow for efficient search and runtime
- Utilized deterministic data structures for maintaining persistence of object information storage and maintaining commit information order

Experience

UC Berkeley – Data 100 Staff

Academic Intern

Berkeley, CA

Sept 2021 – Dec 2021

- Prepared and provided 500+ students advice concerning homework assignments, projects, and labs through Piazza
- Assisted students with data visualization tools and bugs on Jupyter Python/Pandas environment through Piazza
- Coordinated with course staff in weekly online discussion sections with 20+ students on course material and led walkthroughs on practice problems regarding SQL and Python visualization libraries

Leadership

Circle K International at Berkeley

Public Relations Committee Chair

Berkeley, CA

Sept 2020 – May 2021

- Planned interclub service events, welcome week activities and an alumni panel resulting in 20+ new members
- Raised over \$150 for charity by organizing virtual services events for cancer patients