Adhvik Kanagala

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Education

Carnegie Mellon University

Bachelor of Science May 2024

Transfer to Computer Science in Spring 2022

GPA: 3.92

Dean's List, High Honors

Relevant Coursework:

- Computer Systems
- Parallel & Sequential Data Structures and Algorithms
- Great Ideas in Theoretical Computer Science
- Functional Programming
- Imperative Computation

Activities

ScottyLabs

Tech Project Lead, ScottyMaps

Nozari Lab

Undergraduate Research Assistant

Skills

Languages (ordered by experience):
Python · C · Standard ML ·
Javascript · OCaml · Typescript ·
Dart · x86-64 · R · MATLAB

Technologies:

 $\mathsf{Git} \cdot \mathsf{MongoDB} \cdot \mathsf{React} \cdot \mathsf{Flutter} \cdot \\ \mathsf{APIs}$

Other Skills:

Teaching · Review

Work Experience

15-112 Programming and Computer Science · Head of Review

Feh 2021 - Present

- Collaborate with professors to lead the review team, which provides actionable feedback and approves class notes, assessments, assignments, and all other student-facing material before public release
- Mentor 10 students each semester through a 1000-1500 line term project showcasing algorithmic complexity and visual design

Nozari Lab, Carnegie Mellon University · Research Assistant

Feb 2021 - July 2021

- Worked with the <u>jsPsych</u> library to build and deploy a web-based linguistics experiment to investigate language production pipelines through the task of typing words
- Built a processing tool in Python to categorize linguistic errors in typed input

Projects

ScottyMaps (Working Title) · Project Lead

2021-2022

- Spearheading development of a fullstack navigation mobile app for the CMU community
- Building a weighted, directed graph of campus to use with Dijkstra's algorithm for navigation
- Expected completion: spring of 2022

SL Sports · Developer

Summer 2021

- Used the MERN stack to digitize player management for Sri Lankan national athletics
- Built a desktop website in React for sports associations and national sports council to track and approve activities, payments, and competitive standings
- Deployed a mobile app with Flutter for players and coaches to track activities and payments

Tartanhacks Dashboard · Developer

2020-2021

- Developed a hackathon-focused dashboard app for iOS, Android, and the web
- Implemented leaderboards, check-in system, project submission, team search, event calendar, and an account system
- Deployed a backend API with MongoDB and Express.js to manage hacker and event data
- Used for TartanHacks 2021, an international hackathon at CMU with 350+ participants

Primrunner · Sole Developer

Fall 2020

- Implemented a rogue-like mazerunner game by utilizing Prim's algorithm to generate successively larger mazes filled with weapons, powerups, and enemy AI
- Built in Python, using Tkinter and a graphics package built at Carnegie Mellon

Research and Publications

Protein Analysis of selected genes of Landoltia punctata

Author, Multiple sequences published on NCBI's GenBank (2020)

A Tale of Twisted Tentacles

Co-Author, Case study on calamari food impaction with gastrointestinal bleeding (2018)