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 (Spring '22)
- Great Ideas in Theoretical Computer Science (Spring '22)
- 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:
Git · MongoDB · React · Flutter · APIs

Other Skills:
Teaching · Review

Work Experience

15-112 Programming and Computer Science · Head of Review   Feb 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 jsPsych 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)