Adhvik Kanagala

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Education

Carnegie Mellon University
Bachelor of Science
May 2024

Intended transfer to Computer Science in Spring 2022
GPA:
3.92 (Dean's List, High Honors)
Research Areas:
Language Production through Typing

Additional Minors:
Cognitive Neuroscience

Relevant Coursework:
- 15-213 Introduction to Computer Systems
- 15-150 Principles of Functional Programming
- 15-122 Principles of Imperative Computation
- 21-127 Concepts of Mathematics
- 15-112 Fundamentals of Programming and Computer Science

Activities

ScottyLabs
Tech Project Lead, ScottyMaps

Nozari Lab
Undergraduate Research Assistant

Skills

Languages:
Python · C · Standard ML · OCaml · Javascript · Typescript · Dart · R · MATLAB

Technologies:
Git · MongoDB · React · Flutter · APIs

Other Skills:
Teaching · Review

Work Experience

15-112 Fund. of Programming and Computer Science · Teaching Assistant   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
- Develop practice materials, teach group sessions of 5-100 students, tutor struggling students, grade assignments and assessments, hold office hours for 2+ hours per week.

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

Taylor Lab, Princeton University · Research Assistant   June 2019 - August 2019
- Used virtual reality simulations to evaluate the effects of 3D cues on depth perception
- Wrote custom scripts using R to conduct statistical analysis on over 12,000 trials

Projects

ScottyMaps (Working Title) · 2021-2022
- Interactive navigation mobile application for the Carnegie Mellon community
- Provides indoor and outdoor routing between any two points on campus
- Expected completion: spring of 2022

Sports Management Dashboard for National Sports Council of Sri Lanka · Summer 2021
- Used the MERN stack to digitize player management for Sri Lankan national athletics
- Desktop website for sports associations and national council to track and approve activities and payments
- Mobile app (Flutter) for players and coaches to record activities and track payments

Tartanhacks Dashboard · 2020-2021
- Dashboard application built using Flutter for iOS, Android, and the web
- Implemented leaderboards, check-in systems, project submission
- Used for TartanHacks 2021, a nationwide hackathon run by ScottyLabs@CMU
- Deployed a backend API with MongoDB and Express.js to manage hacker and event data

Primrunner · Fall 2020
- Rogue-like mazerunner game that utilizes Prim's algorithm to generate successively larger and larger mazes filled with weapons, powerups, and computer-controlled enemies
- Built in Python

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)