Adhvik Kanagala

adhvik.kanagala@gmail.com · (848) 256-9450 · addykan · Adhvik Kanagala

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 · x86-64 · R · MATLAB

Technologies:
Git · MongoDB · React · Flutter · APIs

Other Skills:
Teaching · Review

Work Experience

15-112 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.
- 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

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

- Building an interactive navigation mobile application for the Carnegie Mellon community
- Using Dijkstra's algorithm to provide indoor navigation through campus facilities
- Expected completion: spring of 2022

Sports Manager for National Sports Council of Sri Lanka · 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 record activities and track payments

Tartanhacks Dashboard · 2020-2021

- Used Flutter to build 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
- Used for TartanHacks 2021, an international hackathon at CMU with 350+ participants
- Deployed a backend API with MongoDB and Express.js to manage hacker and event data

Primrunner · 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)