Manay Dodia

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Experience

GreenCollar – Software Engineer Internship

Sydney, Australia | March – April 2023

- Designed and developed an automation tool using Python and the sentinel hub RESTful API that processes Sentinel-2 satellite imagery to facilitate further analysis.
- Improved efficiency of acquiring imagery data by 40%.

TinkerTank - tutor

Sydney, Australia | January 2023 – current

Introducing High School students to programming, and various other extracurricular STEM subjects.

Projects

Structs.sh - educational DSA site

- Developed an internal education page builder toolset using React, TypeScript and MDX.
- Provided an intuitive interface for the education team to write pages with quiz questions, code blocks, and connections to other components of the site to visualise data structures and algorithms.

The Three Amigos - blog site

- Developed a custom map with unique markers and links using Google Maps API and React.
- Created an animated, interactive 3D globe using three.is.

instaFocused - Instagram messenger sender

- Developed a site with a UI to send/receive Instagram messages ONLY, to minimise social media distractions (reels, stories, etc.) using React, Express.js, and Instagram Graph API.
- Created the website by utilising various Facebook APIs and HTTP methods to send/receive messages.

Volunteering

CSEsoc (competitions team): Organised various coding competitions, incl. a maze-solving algorithm robot contest.

Mathematics Society (careers team): Organised sponsor company events engaging 100s of students.

Redback Racing: Designed a CNN to differentiate coloured cones given point cloud data from a lidar sensor.

CSEsoc Mentor: guiding undergraduate CS students academically and teaching/clarifying CS concepts.

Competitions: Jane Street Figgie/Estimation, Atlassian datathon, Optiver Piece the Puzzle, and IMC hackathon.

Skills

Languages: C, JavaScript, TypeScript, some C++, some Python.

JavaScript related: React, Node.js, Next.js, Git, HTTP, HTML, CSS.

Low Level: MIPS assembly, data structures, algorithms, Operating Systems, interested in performance/security.

Education

University of New South Wales

Feb 2022 - Nov 2024

Bachelor of Computer Science (incl. Extended Operating Systems, Extended Algorithms)

Australian National University

Feb 2020 - Nov 2021

Advanced Mathematics course (incl. cryptography, chaos theory, fractals, topology, countability)