

Sai Kumar Murali Krishnan

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EDUCATION

Monash University

February 2020 - December 2023

Bachelor of Applied Data Science Advanced (Honours)

Melbourne, VIC

- WAM/GPA: 87
- Achievements: Dean's List Award for academic excellence (2021, 2022), Summer and Winter Research scholarships
- Thesis: Bias Modelling and Mitigation in Diffusion Models

EXPERIENCE

Canva

Melbourne, VIC

Machine Learning Engineer

Expected Start: February 2024

- To be continued...

Machine Learning Engineer Intern

November 2022 - February 2023

- Developed a debiasing framework for Stable Diffusion for Canva's Text to Image feature
- Researched and developed bias mitigation strategies targeting Stable Diffusion, addressing harmful and nonrepresentative biases in sensitive categories such as gender and ethnicity

DiGiCOR

Melbourne, VIC

Data Science Intern

July 2022 - October 2022

- Managed a team of four to build a sales dashboard using Streamlit, pulling data from NetSuite's REST API

Monash University

Melbourne, VIC

Winter Research Assistant - with Dr Julian Garcia (GitHub)

June 2022 - July 2022

- Developed a genetic programming framework using simulation in Julia to address a game theoretic problem

Summer Research Assistant - with Dr Xiaoning Du (GitHub)

November 2021 - January 2022

- Parsed and analyzed commit data from over 30,000 deep-learning libraries using GitHub's REST API and Python to understand the evolution of deep-learning libraries for AutoML

COMMUNITY & LEADERSHIP

Monash Association of Coding (MAC)

March 2021 - September 2023

President

- Overseen growth to nearly 1000 members, running a technical careers evening with over 100 attendees
- Conducted 4 successful coding workshops in Python, covering topics such as FastAPI, discord.py, and web development, reaching over 200 attendees
- Led 15 weekly mock technical interviews with LeetCode, preparing students for software-development roles
- Organized and oversaw MAC x Hacksprint, a two-week hackathon attracting more than 200 participants

PROJECTS

project-maidenless | *Streamlit, GPT2, Natural Language Processing (NLP), Transfer Learning*

GitHub

- Used transfer learning to fine-tune a GPT 2 on two university love letter pages, comprising over 20,000 pages
- Created a Streamlit application that infers a fine-tuned version of GPT2 to generate love letters

uwucode | *Language Design, Rust*

GitHub

- Created a toy programming language in Rust, with a homemade parser, as an exploration into language design

Mini Melbourne | *Fullstack, Live data, React, Mapbox, FastAPI*

GitHub - DevPost

- Developed a real-time train map of Melbourne, showcasing the locations of up to 150 trains in Melbourne
- Won the PwC Data Analytics prize at UniHack 2022 for the project
- Utilized FastAPI for the backend and React for the frontend, along with Mapbox for mapping capabilities

SETool | *Data Visualisation, Python, Scraping, Dash, Plotly, Heroku*

GitHub - Site

- Designed and built a web dashboard for comparing course reviews, used by over 1000 students for their education

TECHNICAL SKILLS

Languages: Python, R, Julia, Rust, C, C++, MATLAB, Java, Wolfram

Libraries: Pandas, NumPy, SciPy, PyTorch, Seaborn, Streamlit, TensorFlow, HuggingFace, FastAPI, Dash/Plotly

Mathematics: Graph Theory, Operations Research, Linear Algebra, Calculus, Statistics, Numerical Methods