Ketan Yeluri

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EDUCATION

National University of Singapore (NUS) *Aug 2020 – May 2024*

Bachelor of Computing in Computer Science (Honours)

- Minor in Mathematics
- CAP: 4.38/5.00 (Expected – Honors with Distinction)
- Focus Areas on Artificial Intelligence, Algorithms and Theory
- Relevant Modules: Machine Learning, Optimization Algorithms, AI Planning and Decision Making, Parallel Programming

TECHNICAL SKILLS

- **Programming Languages:** Java, C++, Scala, Python, JavaScript, SQL
- **Libraries and Frameworks:** Apache Flink, Tensorflow, numpy, three.js, plotly.js, Next.js, React, Terraform
- **Tools:** DataDog, Kubernetes, Spinnaker, Kibana, Apache Kafka, IntelliJ, CLion

WORK EXPERIENCE

Teaching Assistant *Aug 2023 – Present*

National University of Singapore

- Tutored over 40 students in Data Structures and Algorithms (CS2040) course. Assisting students with weekly coding assignments by providing valuable guidance in formulating and improving solutions through pseudocode and code reviews
- Supervising and mentoring multiple teams in Software Engineering Project (CS3203) by facilitating agile project management practices. Consulting teams in refining system design, implementation, and testing strategies along with code reviews for adherence to industry-standard software engineering principles

Intern, Machine Learning Engineering *Jan 2023 – Aug 2023*

GrabTaxi Holdings Ltd., *Singapore*

- Designed and engineered three applications aimed at transforming, analysing, and aggregating live data streams from the Grab mobile application into tangible business metrics for monitoring, market shaping and input into feedback loop systems
- Deployed and maintained these real-time stream processing applications built using Scala and Apache Flink, to attain an average uptime of > 99.2%, while ensuring minimal end-to-end processing lag and resource consumption
- Conducted an in-depth exploration of Flink to consolidate and document best practices, gaining a deep understanding of its inner workings and intricacies

RELEVANT PROJECTS

Accurate Open Online Orrery *Aug 2023 – May 2024*

Final Year Project, School of Computing, NUS

- Building an open-source Typescript library for accurate online simulation and visualisation of celestial motion and phenomena for educational and experiential learning opportunities
- Exploring and experimenting with various mathematical modelling and integration methods to achieve efficient and accurate simulation results, along with incorporation of fast and smooth visualisation systems using Plotly and Threejs

Multiclass Weed Identification *Aug 2022 – Nov 2022*

Machine Learning Course Project for CS3244, NUS

- Collaborated as a team tasked with employing ML algorithms for detection and image classification of 8 different species of weeds, achieving a final accuracy of 91.7% by means of an ensemble
- Explored various CNN architectures and data augmentation techniques to construct team's best classifier with a micro-averaged recall score of 93.6%

Competitive Programming

Personal Project *March 2021 – Present*

- Adopt Java and C++ extensively to solve competitive algorithmic puzzles and problems
- Solved over 700 questions on LeetCode, Codeforces and CODECHEF with 365+ day streak on daily problems
- Competed in Advent of Code '20, '21, '22 and '23, Google KickStart '22, Hash Code '22, Shopee Code League '22

LEADERSHIP EXPERIENCE AND CCAs

Chief Communications Officer, Pioneer House Student Council, NUS *Jun 2022 – May 2023*

- Spearheaded a team of graphic designers, content creators and photographers to capture and share resident life in Pioneer House, along with handling all publicity. Launched an annual yearbook initiative serving as its inaugural editor and photographer

Chief Officer for Ground-Up Initiatives, Pioneer House Student Council, NUS *Dec 2021 – May 2022*

- Advised and facilitated 10+ initiatives and interest groups serving a resident community of over 600 students