

BALAJI ADITHYA NARAYANAN

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EDUCATION

Imperial College London

BEng Joint Mathematics and Computer Science - Year 1 grade: First Class Honours

Oct. 2023 - June 2026 (*Expected*), London, England

Overseas Family School

International Baccalaureate Diploma

Aug. 2020 - May 2022, Singapore

Total Score: 44/45 – Ranked top 1.6% worldwide. Sole student to take 4 higher level subjects out of cohort of 250+ students.

EXPERIENCE

Co Founder - Stealth AI Startup (UNDER NDA), applying to YC W24 Aug. 2024 - Present, SF/Texas, United States (*Remote*)
Working with Jeff Wilson, 2 time Y Combinator Alum, former PostDoc researcher & Fellow at Harvard and former Professor/Dean.

Sponsor Liaison - Department of Computing Society (IC)

Jun. 2024 - Present, London, England

Elected by students of the computing department to liaise with sponsors for the highest funded student society in Europe.

- Collaborating to continue to acquire >£100,000 of sponsor funding, with top companies in tech and finance.
- Responsible for coordinating ICHack 25 Sponsorship (Consecutively remains the largest student-run hackathon in Europe)

Investment and Technology Intern - Tristar Investment Management

Jul. 2023 - Sep. 2023, Singapore

Tristar is a Single Family Office setup by Indonesian UHNWIs with USD 700M in assets under management.

- Automated processing of Position and Cash Flow Statements from JP Morgan, UBS, Pictet, and Bank of Singapore, for USD 700M in assets, using Python, OpenAI APIs, Openpyxl, Pandas, and various other libraries. Implemented transaction type detection for purchases, divestment, capital calls, distributions, and fees over statements received by the firm.
- Analyzed the fund's USD 180M fixed income portfolio alongside the investment team.
- Accelerated deployment of the Bloomberg PORT Enterprise by 2 months, by assisting in the implementation of the system and developing custom scripts to port 1.5 years of data to the platform alongside the investment team, using Bloomberg's API.
- Implemented automations for market analysis reports, using interactive brokers API to scrape and provide reports for a given ticker code using llama index, Lang chain and Open AI APIs.

Software Engineer Intern - Tagit Technologies

May 2023 - June 2023, Singapore

Developed solutions for customer feedback analysis, user documentation querying and repeated transaction prediction for the Mobeix digital banking platform, now deployed in applications for the Singapore Government, CitiBank, DBS etc.

- Improved repeated customer transaction prediction accuracy by developing machine learning models in Elastic Search and Kibana, using transaction data to predict the likelihood of repeated customer transactions to specific biller codes.
- Developed queryable sentiment analysis tools using vectorised store of reviews on app marketplaces using llama index, LangChain and OpenAI APIs.
- Enabled natural language querying of Mobeix user documentation by developing custom query models using llama index, lang chain and Open AI APIs along with fine-tuned GPT models.

Software Engineer Intern - Campus.ai

Apr. 2023 - May. 2023, Singapore

Campus.ai is a generative AI startup, developing data science content for leading educational institutions.

- Developed software from scratch to generate student labs on over 20 machine learning model architectures, ranging from Logistic Regression to Transformers and GANs, using TensorFlow, OpenAI, Open router and AYP APIs.
- Liaised with professors from the Indian Institute of Technology and BITS Pilani to gain feedback and implement changes to the notebook generation process.

PROJECTS

AArch64 Emulator and Assembler | C, Assembly, Raspberry Pi, Git

2024

- Developed emulator and assembler for AArch64 in C to run on a Raspberry Pi
- Developed script to control an LED via GPIO in assembly

Terra aim - Runner up at ICHack 2024 | Python, Unity, Flask, OpenCV, SQL, ESP32, Git

2024

- Designed a prototype weapons aim training system, integrating health metrics and performance feedback.
- Tracked gyroscopic data and positional data using an ESP32 mounted to a 3D printed prop gun and OpenCV connected to an iPhone via continuity.
- Data was analysed using Flask and SQL, to determine whether targets in a unity application being displayed in front of a user were hit. Used Terra API health metrics to provide feedback to user.

Investigation into the Inception-v1 CNN architecture | Python, TensorFlow, Keras, CUDA, CNNs

2022

- Developing 200+ different test configurations of the inception-v1 module, to optimise for training time and accuracy.
- Tested hundreds of additional configurations of subsampling stride and number of unique convolutions per module.
- Based on GoogLeNet network and "Going Deeper With Convolutions" by Szegedy et. al.

SKILLS

- **Programming Languages:** *Proficient* - Python, Java, Kotlin. *Familiar* - Haskell, C.
- **Technologies/Libraries:** TensorFlow, Keras, Pandas, Numpy, OpenAI APIs, Llama Index, LangChain, L^AT_EX, Git, GitHub, Huggingface, OpenCV.

ACHIEVEMENTS & AWARDS

- **UKMT Senior Maths Challenge and Intermediate Maths Challenge - Gold** 2021, 2020 *respectively*
- **Ranked top 1% in Singapore for REACH assessments in Science** 2019
- **Selected member of Quant society – Beta Sigma** 2024
- **4 Principal's awards - Overseas Family School** 2019 - 2022
Received for excellent academic performance in a majority of subjects through all 4 years of high school
- **Founder of AI education initiative and head of Machine Learning and AI society (High School)** 2019 - 2022
*Conducted in depth lectures on state of the art architectures and practical implementation techniques.
Founded and ran an initiative to improve AI education with high school students across the world.*