NITHYA KRISHNAN

Diligent and inspired computer scientist who is aspiring to apply skills learnt while gaining new knowledge and experiences.

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EDUCATION

Nanyang Technological University (NTU) - Singapore   Aug 2017 – Dec 2021
B.Eng (with Hons) for Renaissance Engineering Programme (REP) specialising in Computer Science
MSc in Technology Management (Concurrent Degree)
cGPA 4.92/5 (Expected 1st Class), Awarded Dean's List in 2018

Imperial College, London – London, United Kingdom   Oct 2019 – May 2020
Concurrent with REP during the 3rd year of studies.
Relevant Coursework: Mathematics for Machine Learning, Natural Language Processing, Advanced Databases, Computer Vision, Project Management

National Junior College (NJC) – Singapore   Jan 2011 – Dec 2016
GCE 'A' Levels with Integrated Programme (6 distinctions), Awarded Student Of The Year (Valedictorian)

SKILLS

Software: Angular, Command Line Interface, D3, Git, Linux OS, Microsoft Office
Hardware: Raspberry Pi, Arduino (Basic)
Programming Languages: Python, Java, JS, SQL, C, C++, MATLAB, HTML, CSS

WORK EXPERIENCE

McLaren Applied Technologies (Decision Science Intern) – United Kingdom   Jul 2019 – Sept 2019
- Applied state-of-the-art Generative Adversarial Networks (GAN) on multivariate time-series data for anomaly detection
- Deployed the model through a prototype full-stack web application using Angular frontend and Flask backend pipeline
- Improved stenosis detection accuracy in patients by 50% by building an Ensemble Learning model
- Performed exploratory data visualisation on a semi-structured dataset using python data visualisation libraries to communicate the key-takeaways pictorially

Ministry of Education (Relief Allied Educator) – Singapore   Jan 2017 – Jul 2017
- Responsible for teaching 14-16 year old secondary students Physics and Integrated science
- Contributed in the planning of science curriculum and scheduling of classes across the Secondary syllabus
- Commended for the quality of lesson plans and teaching

AWARDS AND ACHIEVEMENTS

Shell Imagine The Future Competition – International 1st Runner-Ups, Regional Champions   Jul 2019
- Deduced possible world landscape based on detailed analysis of current trends in the socio-political, economic and environmental spheres
- Built VR 3D projections of a subset of future scenarios using Unity

National Data Science Challenge – Ranked top 6% out of 360 teams   Apr 2019
- Devised a machine-learning model to classify e-commerce products based on visual and textual clues
- Performed feature extraction (bag-of-words and BERT) and applied machine learning tools (Linear SVM) to successfully classify 83% of products

EDUSAVE Certificate of Academic Achievement   2014 - 2016

PROJECTS

SmartCot Design Project   Sep 2018 - Apr 2019
- Extracted data from multiple sensors on a self-made cot prototype using Raspberry Pi
- Designed and implemented an Android mobile application which communicates with the Raspberry Pi through stream sockets (TCP Protocol)
- Ran python scripts on the Raspberry Pi to analyse sensor data and communicate with mobile application if any anomalies found
- Coordinated a cross-functional team by introducing milestones and delegating work based on interests and skills and ensured all deadlines were met

SIA App Challenge 2018   Aug 2018 – Oct 2018
- Devised an algorithm to optimise meal portions in day-to-day airline operations
- Final algorithm was an application that read QR codes, performed image processing and incorporated object detection algorithms (YOLO) to quantify food wastage with a 80% accuracy

Meetpoint   Aug 2018 - Oct 2018
- Devised an optimisation algorithm to minimise travel time based on a set of parameters
- Developed a mobile application using JavaScript backend and Dart frontend that demonstrates the algorithm
- Implemented object-oriented design principles and patterns (Model View Controller) to ensure highly modular and reusable software

Citi-YMCA Youth for Causes Project   Jan 2015 - Dec 2015
- Founded and managed a self-initiated project that targeted gender discrimination issues and domestic violence faced in Singapore
- Placed in Top 10 for project's ingenious objectives and completion within budget

Heartware Network Tuition Programme   Jan 2015 - Dec 2015
- Coached underprivileged students weekly in mathematics and science
- Coordinated team of 25 volunteer tutors and delegated tutors based on skills and interests
- Directly liaised with branch managers and Heartware Network staff to plan the curriculum and pace of teaching

CO-CURRICULAR ACTIVITIES

NTU Athulya – *Founder and Student Leader*   May 2019 – Present
- Designed a work process to efficiently plan and organise members, events and funds.
- Surpassed public outreach goals with effective publicity and planning.

NTU Tamil Literacy Society – *Dance Coordinator*   Aug 2018 – May 2019
- Identified several structural issues and led core initiatives to improve efficiencies, discipline and segregation of duties
- Choreographed dance pieces for a team of 50 dancers for cultural performances
- Recognised for exceptional initiative and commitment as a "Dance Wing Award" honouree

NTU REClub– *Publicity Committee Member*   Sep 2017 – May 2018
- Revamped the newsletter, applying design thinking to encourage reader interest
- Managed and wrote engaging headlines and articles for the weekly newsletter

NJC Indian Dance – *Student Leader*   Jan 2012 – Aug 2016
2015 Singapore Youth Festival: Won Distinction
2013 Singapore Youth Festival: Won Distinction

LANGUAGES
English (Fluent), Hindi (Fluent), Malayalam (Fluent), Tamil (Basic)

HOBBIES AND INTERESTS
Dancing, Teaching, Solving logic puzzles, Reading, Badminton