

Aishik Nagar

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[World Champion, Google Solutions Challenge](#) | [National Gold, Techblazer Awards](#) | [APAC Champion, Microsoft Hackathon](#) | [Top 3, 15K Competition Singapore](#) | [Global Top 10, Grab Hackathon](#)

Education

Nanyang Technological University

2018 – 2022

Bachelor of Engineering (Electrical and Electronics Engineering)

- **Nanyang Science and Engineering Scholar**
- Specialization in **Data Intelligence and Computer Engineering**
- [Koh Boon Hwee Scholars Award](#) (University Scholars Award)
- **NTU EEE Excellence Award**

The Heritage School

2016 – 2018

High School

- **All India rank 4** in Indian High board school examinations (ISC): 98.75% (School topper)
- **INSPIRE Scholarship** by the **Govt. Of India** for being the top 1% performer

Projects and Activities

All projects are available from [my website!](#)

Co-Founder | [DementiCare](#)

- Built a **Dementia Caregiving App**

Co-Founder | [Geolytics.AI](#)

- Developed and deployed an AI system for **Natural Disaster Risk Management**

Chairperson | [INTUition v7.0](#)

- Organized **NTU's largest flagship student run hackathon** and took it to the **international level for the first time**
- Developed and deployed the [official website](#) an [avatar-based virtual platform](#) used by **over 500 participants** and sponsors like **SAP, HP, BIGO** and **GovTech**

Experience

Shopee | Algorithm Engineer

Jul 2022 – Present

- **Spearheaded IC Anti Spoofing** Projects for **Shopee Malaysia**. Collaborated with PM's, QA's and Ops teams to develop the API for **Identity Verification** in ShopeePay and SeaMoney
- Developed techniques which **improved data mining efficiency** in unlabeled datasets from **10% to over 40%**
- Implemented **CNN architecture agnostic techniques** such as *RSG* and *LDAM-DRW* to **train Deep Learning models** from **heavily imbalanced datasets** which improved the **performance** of the API models from **10% to over 90%**
- Applied **CNN Condensing algorithms** using PDE constraints which **reduced storage and computation costs by over 60%**

A*STAR | Research Intern

Aug 2021 – Mar 2022

- Researched developing **3D models from 3D point clouds and images**.
- Collaborated on building a 3D simulation environment based on **iGibson** for **3D Deep learning**
- Explored **Human Segmentation** and **Object Detection** in a 3D scene.

Shopee | Data Science Intern

Jan 2021 – Aug 2021

- Improved **state-of-the-art deep learning models** like *yolov5* and *U2Net* along with extensive **image processing** to develop services for **custom general object detector** and **salient product segmentation**.
- Developed **deployment pipelines** for Shopee's general detector service for both PyTorch and Onnx frameworks. Employed **optimization** techniques which **increased efficiency by over 10 times** from the previous version.
- Both services are on the Shopee platform and **serving over 100 million requests per day**

Panasonic Asia Pacific | Image Processing and 3D Intern

Jun 2020 – Dec 2020

- Worked on **perception AI** for **autonomous vehicles**.
- Used **deep learning, ROS, image processing, computer vision, python, C++** and **camera imaging theory**.
- **Researched and implemented SOTA AI Models** for *Face Detection*, *3D+2D object detection* and *statistical analysis* among others.
- Wrote scripts for visualizing 3D detection results on 2D image and in birds-eye view, reprojecting data to ego-vehicle perspective, along with integration in ROS.
- Worked with different types of sensors like **LIDAR, pinhole, fisheye** and **GPS**.
- All my projects were **shipped to clients** and are now in use in the engine.

Skills

Data Science: Python, Tensorflow, Keras, Pytorch, Spark and Scala for Big Data (basic), Natural Language Processing, Computer Vision

Software Engineering: HTML, CSS, Flutter, Firebase, Django, Flask, MongoDB, JavaScript, Go, SQL, PHP, Docker, Kubernetes, Dart

Frameworks and libraries: Node.js, Express, React, Electron.js, Angular, Pandas, Numpy, Sci-kit learn, Seaborn, Matplotlib, Bootstrap

Misc: C++, Java, Unity (basic), Robot Operating System (ROS), Amazon Web Services (AWS), Google Cloud Platform (GCP), Microsoft Azure