

# Aishik Nagar

[World Champion, Google Solutions Challenge](#) | [National Gold, Techblazer Awards](#) | Top 3, 15K Competition Singapore | Final Year, NTU | Data Science | Research | Software Engineering

## Education

NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE | 2018 – 2022

Bachelor of Engineering (Electrical and Electronics Engineering)

- **Nanyang Science and Engineering Scholar**
- Double specialization in **Data Intelligence** and **Computer Engineering** with minor in **Business**
- President's Research Scholar (URECA), Technical Director – IEEE NTU Student Branch and Trainer and Developer in Garage@EEE

THE HERITAGE SCHOOL, KOLKATA | 2016 – 2018

High School

- **All India rank 4** in Indian High board school examinations (ISC): 98.75% (School topper)
- Awarded '**Outstanding Student Personality**' upon graduation
- *School Vice-Captain* and Leader of the School Student Council
- **INSPIRE Scholarship** by the **Govt. Of India** for being the top 1% performer.

## Projects

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

*DementiCare*

- **World Champion, Google Developer Solutions Challenge 2021**
- Built a **Dementia Caregiving App** Using *Azure, Flutter* and *FireBase*

[Geolytics.AI](#)

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

## Skills

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

**Software Engineering:** HTML, CSS, Flutter, Firebase, Django, Flask, MongoDB, JavaScript, Go, SQL, PHP

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

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

## Experience

A\*STAR | Research Intern

Aug 2021 – March 2022

- Working in the **I2R (Visual Intelligence)** Department for developing **3D models from 3D point clouds and images**.

SHOPEE | Data Science Intern

Jan 2021 – Aug 2021

- Used and **improved on state-of-the-art deep learning models** like yolo v5 for training and developing a custom general object detector.
- Developed a **deployment pipeline** 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.
- The detector service is live on the Shopee platform and **serving over 60 million requests per day** and set to be adopted for major features such as Image Search.
- Worked on *Salient Object Detection* and *Image Segmentation* using SOTA Deep Learning models like *U2Net* and *F3Net*.
- Performed *algorithmic improvements* on the model along with extensive *image processing* on training data to develop the latest Product Segmentation Service.
- Developed the **backend deployment and inference pipeline** for the service.

PANASONIC R&D CENTRE, SINGAPORE | 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*, *Parameterized t-SNE*, *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.

INTUITION v7.0 | Chairperson

Aug 2020 – May 2021

- Organized **NTU's largest flagship** student run **hackathon** and took it to the **international level for the first time**.
- Managed Tech, Logistics, Liaison, Business and Finance departments.
- Developed and maintained INTUITION v7.0 [official website](#).
- Developed and deployed an **avatar-based virtual platform** for the online event using *Go, Angular, Redis* and *AWS* which was **used by over 500 participants** and **sponsors** like **SAP, HP, BIGO** and **GovTech** during the event.
- Used *AWS S3, Route 53, Redis, EC2* etc to build a **scalable platform** with load balancing and traffic handling on the cloud for a unique gamified experience.
- Developed and deployed an **Event Registration System** with *SSO functionality* using *Angular*, and *mongo dB* and *Heroku*.

## Contact

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