

# SAMUEL LEE

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## EDUCATION

**2019 TO PRESENT**

### **BACHELOR'S IN COMPUTER SCIENCE**

NANYANG TECHNOLOGICAL UNIVERSITY, SINGAPORE

- Current CGPA: 3.95/5.00

**2014 - 2017**

### **DIPLOMA WITH MERIT IN BUSINESS INTELLIGENCE AND ANALYTICS**

TEMASEK POLYTECHNIC, SINGAPORE

- CGPA: 3.83/4
- Director's List (Academic Year 2015/2016)
- TP-VCE Scholarship (2014-2017)

## WORK EXPERIENCE

**IDEMIA (JAN 2022 – CURRENT)**

### **VIDEO ANALYTICS INTERN**

- Develop a computer vision based unattended object detection algorithm for ICA checkpoint & Changi Airport gates.
- Trained a deep neural network model with Pytorch (Resnet 50) to differentiate between right and left thumbs and other fingers for the purpose of fingerprint enrolment in ICA checkpoints & Changi Airport gates.
- Build relevant pipelines for end to end implementation of said algorithms/models for productions – utilizing web apps, Triton servers & RTSP Cameras
- Implement Resnet50 Models through Triton Nvidia Inference servers on a Jetson Board.

**LTA AUTONOMOUS VEHICLE PROJECT OFFICE (AVPO) | MAY 2021 – AUGUST 2021**

### **ANALYTICS & RESEARCH INTERN**

- Built a Tableau dashboard on the autonomous vehicle trials for monitoring and data analytics.
- Extracted important features from autonomous vehicle logs and cleaned them into structured text & csv files using python.
- Developed a teaching material for the Vocational License Department on Advanced Driver Assistance Systems.
- Revise data collection elements that are being used for autonomous vehicle progress checking & incident investigation.

**CARE CORNER PROJECT START | MAY 2019 – DEC 2020**

### **PART TIME SOFTWARE AND DATABASE ENGINEER**

- Eased staff workflow by automating reports and Excel summaries through VBA.
- Managed and spearheaded a data migration team to transition to a new salesforce database.
- Mapped out and planned the process of data transfer and data organization for a seamless transition.

**HITACHI ASIA LTD | JULY 2016 - FEBURARY 2017**

## **RESEARCH INTERN**

- Developed a CCTV video analytics application to track a given human or vehicle image.
- Developed the front-end application using Java and the backend algorithms using C++ and Python.
- Extracted and engineered image features using RGB, HSV and Edge methods.
- Performed object detection and image classification using Support Vector Machines.
- Built Haar Classifiers to perform object detection.
- Performed incremental clustering to group similar images.

## **ACADEMIC & PERSONAL PROJECTS**

**JANUARY 2021 – CURRENT**

### **CREATED A WEB APPLICATION FOR COLLEGE OF ENGINEERING STAFF TO TRACK STUDENT INFORMATION**

- Utilized mySQL databases, ASP.NET and the MVC framework to create a straightforward process to access student data.
- Eased staff workload by allowing users to import excel files containing student data directly to the web application where it transfers the data to the mySQL database.
- Increased efficiency in staff where the application provides query select statements in the form of buttons to extract and view student data from the database.
- Created and taught a tutorial for students hosted by the College of Engineering to teach students on the basics of web hosting, database creation and connecting the two together.

**JANUARY 2022**

### **MICROSOFT TEAMS TO TELEGRAM LINK**

- Developed an application leveraging computer vision to detect changes/messages on teams and forward the message screenshots to a telegram bot.
- User is then able to reply through the telegram bot which will forward the message to a specific recipient on teams
- Side Feature -> Auto clicker to keep user online on teams

## **CO-CURRICULAR ACITIVIES**

**JAMBAND MANAGER**

### **HALL JAMBAND | AUGUST 2020 – CURRENT**

- Managed band performances, planning the flow of music, dynamics and event coordination thus successfully performing at multiple live and recorded events.
- Performed as a keyboardist at multiple events.

**STUDENT AMBASSADOR**

### **COLLEGE OF ENGINEERING CLUB | AUGUST 2019 – CURRENT**

- Managed and ran an NTU college of engineering orientation during the COVID period, observing the safe distancing measures and running the event successfully.
- Spearheaded the planning and execution of a Dell Hackathon. Successfully managed the resources given through budgeting and assisted in the mentoring of a hackathon group.

## **SKILLS AND CERTIFICATIONS**

**Languages:** Proficient in English and Chinese.

**Digital skills:** C++, C#, C, Python, MATLAB, Java, Javascript, HTML, R, VBA, Qlikview, Microsoft Office, Tableau

**Certifications:** Bloomberg Junior Achievement Workplace Mentoring, SAS Predictive Modeler using SAS Enterprise Miner

## **HOBBIES**

Playing Musical Instruments (Guitar, Piano, Keyboard, Drums), Rock Climbing, Ultimate Frisbee and Cliff Diving.

