

# Lim Chao Zhou

chaozhoulim@gmail.com ❖ (+65) 92976861 ❖ Singapore ❖ Singapore Citizen

Personal Portfolio: [www.chaozhoulim.com](http://www.chaozhoulim.com)

LinkedIn: <https://www.linkedin.com/in/chao-zhou-lim-629493215>

---

Highly motivated and results-driven fresh graduate from NUS with a strong foundation and approximately 2+ years of experience in ML and AI through projects and internships. With a passion for solving complex problems through data-driven insights, I am poised to embark on a promising career as an ML Engineer upon my graduation in May 2024.

## SKILLS & INTERESTS

---

- **Machine Learning** *Supervised, Unsupervised Machine Learning, Classification Regression Models, KNN, Linear and Logistic Regression, K-Means Clustering, SVM, Decision Trees, Naïve Bayes*
- **Neural Networks** *CNN, LSTM, NLP, Computer Vision, Transformers*
- **Tools** *OpenCV, TensorFlow, Media Pipe, Open Pose, Keras, Sci-Kit Learn, Hugging Face*
- **Programming Languages** *Python, Java, JavaScript, with basics in HTML, CSS, XML*
- **Hardware and Systems** *GPU, CUDA, Linux, Windows, Jupyter*
- **Software** *CAD Software SolidWorks, Fusion 360, MATLAB, Mathematica, COMSOL Multiphysics, Android Development, Power BI, Tableau, Git, Github*
- **Spoken Languages** *English (Native), Mandarin*
- **Soft Skills** *Teamwork, Leadership, Problem Solving, Critical Thinking, Adaptability, Independence, Time-management*
- **Interests** *Working out, Keeping Fit, Sports, Watching Movies, Being a better person than I was yesterday*

## EDUCATION

---

### National University of Singapore, Singapore

Expected May, 2024

*B.Eng. Engineering Science (Hons), with a specialization: Computational Engineering Science, Minor: Artificial Intelligence*

- **Grade: Honors with Distinction**
- NUS Volleyball Varsity Player, Vice-Captain Eusoff Hall Volleyball club, PAL Mentor Eusoff Hall, Orientation Group Leader ESP sub-club

### University of Toronto, Canada

### Winter Exchange Programme

*Engineering Science, Faculty of Applied Science and Engineering*

*Jan 2023 – Apr 2023*

- Courses Taken: ROB311: Artificial Intelligence, ROB313: Introduction to Learning from Data, APM462: Non-linear Optimization, MAT246: Concepts in Abstract Mathematics, APS112: Engineering Strategies and Practices

### Tampines-Meridian Junior College, Singapore

November, 2017

*Science, H2 Physics, Mathematics, Economics, H1 Chemistry*

- **Dean's List Pre-U 1**
- **MOE Edusave Academic Achievement. CDC-CCC Merit Award top 25%**
- Captain School Volleyball Team

### Pasir Ris Crest Secondary School

November, 2015

*Science, Double Mathematics, Double Sciences, Double Humanities*

- L1R5: 10 (4 Distinctions)
- **MOE Edusave Scholarship 2012 and 2013 (\$500 each) top 10%, Promotion in Stream NA to Express, Model Crestian Award 2013 and 2014, Cross Country Champion 2014**
- Captain School Volleyball Team, Student Leaders Board Member

## WORK EXPERIENCE

---

### SIA-NUS Digital Aviation Corporate Laboratory, Singapore

May 2023 – Present

*ML Research Engineer*

*Internship, Part-time*

- Research Focus: Predicting passenger discomfort in long-haul Business Class flights using multi-modal sensors and developing AI algorithms to detect onset of discomfort.
- Employ ML algorithms to predict passenger's seat discomfort using pressure data and postural analysis via computer vision.
- Conduct pilot studies on participants and liaise with SIA for further development of IRB proposal.
- Delivered insightful data-driven reports and updates to Principal Investigator (PI) and key SIA stakeholders, facilitating informed decision-making processes.
- Key Contributions: Develop android applications (full-stack) to integrate with the cabin simulator's mocked up In-Flight Entertainment system (IFE), to collect subjective data.

### **Automated Micron Assembly, Singapore**

**May 2022 – Aug 2022**

*Robotics Engineer*

*Internship*

- Employ Computer Vision and Pattern recognition algorithms to automation products for marketing purposes.
- Directed small projects which can be viewed on my LinkedIn page [here](#).
- Create SOPs for clients to use with company's products.
- Participate and engage in meetings with existing and prospective clients to discuss opportunities on future collaborations.
- Maintain, edit and update company's website such as uploading of files, videos and articles, using cPanel and HTML.

### **Identiv Private Limited**

**June 2021 – July 2021**

*Production Operator*

*Internship*

- Inspected final products to assess compliance with quality standards and established tolerances.
- Inspected final products for defects and flaws using proper QA procedures.
- Assisted senior-level engineers in the implantation of RFID chips onto smart tags.

### **Singapore Armed Forces**

**Apr 2018 – Feb 2020**

*Platoon Sergeant 749 SIR Charlie | Feb 2020 -- Present*

*Reservist National Service*

- Lead 40 NS men during the next 10 years of reservist both in and off the field

*Platoon Sergeant 3 SIR Charlie | Apr 2019 – Feb 2020*

*Full-Time National Service*

- Lead and take responsibility of 30 – 40 NSF's during trainings both in and off the field

#### **Company Best Commander**

- Appointment to Platoon Sergeant 749 SIR Charlie Company

*Section Commander 3 SIR Charlie | Nov 2018 – Apr 2019*

*Full-Time National Service*

- Lead and take responsibility of 10 - 15 NSF's during trainings both in and off the field

#### **Promotion in Rank to Second Sergeant (Highest attainable rank as an NSF specialist)**

- Appointment to Platoon Sergeant 3 SIR Charlie Company

*Specialist Cadet | June 2018 – Nov 2018*

*Full-Time National Service*

- **Graduated as an Honoured Graduate (Silver Bayonet Recipient) for top 10% of cadets**

- **Commendation letter from Head Specialist and Warrant officer Institute (SWI).**

- Appointed Section Commander 3 SIR Charlie Company

### **FEATURED PROJECTS**

- **Final-Year Thesis:** Using High-level Natural Language to Command Embodied Artificial Intelligence: **Top 12<sup>th</sup> placing on the ALFRED'24 Challenge Leaderboard.**
- **NUS School of Computing 24<sup>th</sup> SoC Term Project Showcase (STeP):** Utilize LLM for grammatical error correction using Seq2Seq models.
- **Real time sign to text translation:** Built a custom LSTM model to train a computer vision model to recognize hand gestures and translate to written text
- **Vision and pattern recognition with collaborative robot:** Incorporate vision and pattern recognition function in The Sawyer to detect and adapt to any changes in its environment during a simple pick and place task via the use of landmarks. Video can be viewed in my LinkedIn [here](#).