CHAN JUN SHERN

Telephone : +65 85860313 Email Address: chanjunshern@gmail.com Website: junshern.github.io

Hi! I'm a research engineer at autonomous vehicles company Motional, specializing in sensor calibration & fusion.

I am looking to transition into Artificial Intelligence research with long-term impact. Currently interested in Human-Cooperative AI: multi-agent reinforcement learning, value learning & alignment, population mechanisms, and societal impacts of AI.

I like to read, think and talk about the future of life, and my motivation is to create a future abundant in joy and meaning for all.

Full-time Work & Education

Autonomous Vehicle Research Engineer at Motional (formerly Aptiv, formerly nuTonomy) **2018-2021**

- Worked on a variety of computer vision and multi-view geometry problems for multi-modal **sensor calibration** (cameras, LiDAR, and radar) of autonomous vehicles.
- As the **first member of the Calibration team**, I had a key role growing us over 3 years - from personally calibrating each sensor by hand to now a suite of automated calibration tools deployed for hundreds of vehicles at 5 sites across the world.
- Filed **4 patents** on methods & tools for autonomous vehicle sensor calibration.
- Languages: `C++`, `Python`
- Developer Tools: `git`, `docker` & `lxc`, `AWS`, `Jenkins`, `Conan`

MEng Electrical and Electronic Engineering at Imperial College London **2014-2018**

- Graduated with 1st Class Honours.
- *Comper: A Collaborative Musical Accompaniment System using Deep Latent Vector Models*
  My final year project won the department's **Student Centenary Prize** (awarded to one student in each graduating class "for an outstanding undergraduate project").

Independent Projects & Research

Independent Projects & Research at Home **2020-2021**

- *Paper Reading Group*
  I maintain an online paper reading blog with over a thousand followers, where I distill AI research publications into 10-slide summaries.
- *What is AI For Good?*
  What I've learned after one year of asking that question.

Deep Reinforcement Learning Nanodegree at Udacity **2020**

- 4-month online nanodegree on Deep Reinforcement Learning. [Certificate and Course Info]
- For my capstone project, I implemented 3 famous RL algorithms with `PyTorch` to solve various benchmarks within the Unity ML Agents environment. [GitHub: DQN, DDPG and MADDPG]

Open-source & Teaching

Google Summer of Code participant for the Processing Foundation **2021**

- Contributed to the open-source library p5.js. [Write-up on the p5.js blog]
- Published an interactive web tutorial on Algorithmic Music Composition.
- Sponsored to attend the p5.js Contributors Conference held at Carnegie Mellon University.
- Collaborated with composer Shereen Cheong for a music video made entirely in p5.js.

Founder and Instructor at Creative Coding for Beginners **2018**

- Ran a series of workshops to teach coding to beginners in Kuala Lumpur. [Blog post]
- Curriculum developed for `JavaScript` with `p5.js`. [Class website]

Instructor at Fire Tech **2017-2018**

- Instructor at numerous after-school clubs and holiday camps in London.
- Taught `Scratch`, `Python`, and `Arduino` to kids aged 7-14.