Eric Yap Wei Lok

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SKILLS & INTERESTS

- **Skills:** *For the list below, N stands for Novice*
  - Programming Languages – Python, Javascript, Java, C++ (*N*), C (*N*)
  - Frontend – HTML, CSS, ReactJS / JSX, jQuery (*N*)
  - Backend – Django, Flask, Spring Boot (*N*)
  - Database – PostgreSQL (N), MongoDB (*N*)
  - Machine / Deep Learning – PyTorch, NumPy
  - DevOps / Others – Git, Bash, Linux, LaTeX, Jest (*N*), Junit (*N*), PyUnit (*N*), Travis CI (*N*)
- **Languages:** English (*Fluent*), Chinese (*Basic*), Japanese (*Basic*)
- **Interests:** Cybersecurity, Problem solving, Exploring new technologies, Japanese culture

WORK EXPERIENCE

Continental Automotive **May. 2018 – Sep. 2018**
Cybersecurity Research Intern *Singapore*

- Researched on automotive electrical control unit (ECU) bootloader security
- Proposed new proof-of-concept ECU secure boot protocol written in C
- Presented proof-of-concept to Continental engineers around the world via video conference
- Managed Git repository for the project as well as the related documentations

EDUCATION

Singapore University of Technology & Design (SUTD) **Dec. 2019**
BS, Computer Science *Singapore*

- Relevant coursework: Software Engineering, Machine / Deep Learning, Algorithms, Networks, Security etc.
- Treasurer of Skate club in 2018, Member of Volleyball team in 2017

PROJECTS

NVIDIA Artificial Intelligence Research Assistant **Jan. 2019 – Aug. 2019**
Backend / Data Pipeline

- Capstone project (7 members) in collaboration with researchers at NVIDIA AI Technology Center
- Contributed in Django backend and designed data processing pipeline with Python
- Performed unit testing using Python's UnitTest library and helped manage code structure
- Project management was done using Scrum (Agile), with 2-weeks sprints in-between researcher meeting
- Nominated for outstanding projects in SUTD Capstone Presentation 2019

LANL Eartquake Prediction **Apr. 2019 – May. 2019**
Deep Learning

- PyTorch deep learning application to forecast earthquakes based on laboratory acoustic data
- Worked together with 2 other members to implement and compare various existing neural network models
- Best model (PWaves-DenseNet) achieved 2.20 validation mean absolute error (MAE) and 1.69 test MAE

Others (Available at github.com/ericywl) **2017 – 2019**

- **2019:** Personal Porfolio (*ReactJS / GatsbyJS*), PhotonRT Ray Tracer (*C++*), PascalVOC Image Classification with CNNs (*PyTorch*)
- **2018:** Archwing Ethereum dApp (*ReactJS, Solidity*), PyTor Onion Routing (*Electron, Python*), Twitter POS Tagging with HMMs (*Python*), STUDChat Webapp (*ReactJS, MeteorJS*), StackerOverflow (*Mojo FPGA*)
- **2017:** SG Temple Tour App (*Android*), ProfChoper Webapp (*HTML / CSS, jQuery, Spring Boot*)