# **Pham Trung Viet**

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#### **EDUCATION**

### Singapore University of Technology and Design (SUTD)

May 2018 to Aug 2021

- Bachelor of Engineering (Computer Science and Design)
- GPA 4.25/ 5.0, Magna Cum Laude
- SUTD Undergraduate Merit Scholarship

### **WORK EXPERIENCES**

# **Prudential Service Singapore**

### Senior Data Engineer

Oct 2021 to Present

- Designed and developed automated data pipeline for Azure Cloud Resource optimisation. This pipeline derived key
  performance metrics that drive the cost reduction initiatives across the organisation.
- Developed API wrapper library for external security applications that helps monitor vulnerabilities. Created and
  maintained automation scripts for security monitoring tasks such as scans and detection of new vulnerabilities.

### **LionsBot International Pte Ltd**

# Software Engineer Intern/ Part-time

May 2019 to Feb 2020

- Constructed a computer vision pipeline for a real-time image segmentation module to improve robot autonomous navigation in a research group of 2 with the guidance of senior developers.
- Customized and trained the neural network using ICNet architecture. The resulting model improved the segmentation task accuracy while ensuring a low inference rate. Incorporated the inferencing module into ROS.

### **ACADEMIC PROJECTS**

# Deep learning to predict vertebrae biomarkers from CT Scan Undergraduate Research Opportunity Program (SUTD)

Sep 2020 to Aug 2021

- Undertook an individual research project that integrated computer vision models (SpatialConfiguration-Net and U-Net) and gradient boosting model (XGBoost) for vertebrae segmentation and analysis.
- After Fine-tuning and evaluation, the resulting models' performance, when compared to the current clinical vertebrae analysis practice, could help shorten the procedure by 10 folds while reducing manual labor.

# Jazz music generation using Deep Learning

### Computational Data Science (SUTD)

Sep 2020 to Dec 2020

- Built and assessed multiple neural network models for Jazz music generation, utilizing state-of-the-art natural language processing architecture such as LSTM and Attention. Explored different music embedding approaches that best suited for Jazz music.
- Created a Web-App demo using ReactJS and Flask, where users can input their own music sequence and the model will generate endless sequences of Jazz music, the product is deployed using Google Cloud Platform.

### **Amazon Book Reviews**

# Database and Big Data Systems (SUTD)

Sep 2020 to Dec 2020

- Built a ReactJS web app where users can look up books' information and reviews, post their own reviews and explore recommended books. The backend consists of both relational database (MySQL) and non-relational database (MongoDB), storing users' reviews and books metadata. The systems run on AWS EC2 instances.
- Implemented scalable analytics cluster that utilized Hadoop and Spark to run distributed analytical tasks on the backend data.

\* Please visit victorpham1997.github.io/#acad\_proj to see more of my projects.

### **CO-CURRICULAR ACTIVITIES**

# **University Teaching Assistant**

Sep 2020 to Apr 2021

 Assisted Introduction to Algorithms and Probability and Statistic courses. Aided professors in homework marking, held weekly consultation hours to help students and answer questions on the course forum.

# SUTD Boxing Club (Vice president)

2018 to 2019

 Planned and conducted weekly practices for the club. Organized university inter martial art sparring event for SUTD students together with the university's other martial art committee.

# **ADDITIONAL INFORMATION**

- Proficient in Python, Javascript, HTML5/CSS3.
- Azure Cloud Services, Keras, Tensorflow, PyTorch, MySQL, NodeJS, ReactJS and Linux.
- DevSecOps tools such as Terraform, Jenkins; Visualisation tools such as MS Power BI, Adobe Photoshops
- Fluent in English and Vietnamese.