

# Zhenyuan (Desmond) Liu

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👤 desmondly.me · in linkedin/desmondly

## Education

### The Chinese University of Hong Kong (CUHK)

2017.08 – 2021.07 (expected)

BSc. in Computer Science. GPA: 3.79/4.00. Major GPA: 3.95/4.00.

### University of Toronto

2020.01 - 2020.04

Exchange Program

## Research Experience

### Worst-case Rigidity Analysis and Optimization for Assemblies

2020.07 - 2021.05

- Advisor: Prof. Fu Chi-Wing, CUHK
- **Joint-1st-author paper under-review at SIGGRPAH ASIA 2021**
- Modelled an assembly structure with different mechanical joints by stiffness matrices and linear constraints, and formulate an optimization problem. Then solved it to predict motions, measure and optimize structural stability in a unified framework.

### Saving Computation by Slicing Neural Networks Using SVM

2020.06 - 2020.09

- Advisor: Prof. Anand Sarwate, Rutgers University
- Funded by Professor Charles K. Kao Research Scholarship
- Collected intermediate data in the middle layers of neural networks and used SVM to do binary classification for early stopping during inference time to save computation.

### Generating Adversarial Examples in Text Classification

2019.06 - 2019.09

- Advisor: Prof. Michael R. Lyu, CUHK
- Faculty 2019 Summer Research *Best Project Award*
- Attacked state-of-the-art text classifiers (mainly neural nets) via white-box and black-box methods, then compared and analyzed the results of different attack strategies.

## Work Experience

### Backend Development Intern, Tencent, China

2021.01 - Present

- Develop and maintain the backend billing platform that processes millions of API invocations for the cloud security services provided by Tencent Cloud in close collaboration with other team members.
- Develop using Golang the backend of an internal data service that aid other co-workers to access and analyze the data in an efficient and convenient manner.

## Awards and Honors

Arthur and Louise May Memorial Scholarship

2020

Professor Charles K. Kao Research Exchange Scholarship

2020

Outstanding Academic Performance Scholarship, Dept. of CSE

2018/19, 2019/20

ELITE Stream Scholarship, Fac. of Engineering

2017/18, 2018/19

Dean's List, Fac. of Engineering

2017/18, 2018/19, 2019/20

## Skills

### Professional Skills

- Languages (rank by proficiency): Python, C/C++, Go, Java, JavaScript, TypeScript, Clojure, Dart
- Scientific Computing and Learning: Eigen, TensorFlow, PyTorch, scikit-learn
- Web/Mobile/Desktop Development: Vue, Flutter, React Native, Electron

### Language Skills

- Mandarin (Native), English (Proficient), Cantonese (Familiar)