

ZHUOYUE LYU

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EDUCATION

University of Toronto (St. George)

Sep 2017 - Jun 2021

Second-year Computer Science Specialist - Focus in Artificial Intelligence

Toronto, Canada

Related Courses:

- **A+** CSC165 Mathematical Expression and Reasoning for Computer Science (2017 winter)
- **A-** CSC148 Introduction to Computer Science (2017 winter)
- CSC207 Software Design (2018 fall)
- CSC236 Introduction to the Theory of Computation (2018 fall)
- CSC263 Data Structures and Analysis (2019 winter)
- CSC384 Introduction to Artificial Intelligence (2019 winter)

SKILLS/PROJECTS

Skills:

- *Coding:* Python, Java, LaTeX, VB, CSS/HTML(Basic), C++/C(Basic)
- *Tools:* Pycharm/IntelliJ, GitHub, TensorFlow, Android Studio, CARLA Simulator
- *Knowledge:* Machine Learning (Google Crash Course & Research Experience)
- *Communicate:* English (Fluent), Chinese (Native), Polish (Basic)

Projects:

- **Mobile Application Development (Java):** [Sliding Tiles Game \(click\)](#)
 - Avoided code smells, using design patterns like Iterator and Observer
 - Using knowledge from software design course, got a final mark of 100%
- **A game with AI strategies (Python):** [Stonehenge/SubtractSquare Game \(click\)](#)
 - Built using object-oriented programming techniques from the Python course
 - With Iterative/recursive AI strategies, got a final mark of 93% on completion
- **Simple Machine Learning Models (Python):** [ML \(click\)](#)
 - Built 5 machine learning modes (like KNN, decision tree) follow the online learning source
 - Done this during my summer research at CAS
- **Personal Website (CSS):** [zhuoyuelyu.github.io \(click\)](#)
 - Independent design and coding of the graphics interface
 - Static websites with 4 separate modules, continually updating

RESEARCH EXPERIENCE

Chinese Academy of Sciences

Aug 2018 - Sep 2018

Research Assistant in ADAS simulation team, Institute of Software

Beijing, China

[zhuoyuelyu.github.io/research.html \(click\)](#)

1. Generated **11,600** deteriorated images of street signs
2. Using Python and **TensorFlow** to retrain the last layer of the **Google Inception V3** artificial neural network
3. **Machine learning:** trained the model for 3000 steps, got a classifier with **90+**% precision
4. Analyzed the data and tried to find the relationship between **deterioration rate** and identifying accuracy

*CAS is the national academy for the natural sciences of the People's Republic of China. Which is the world's largest research organization, comprising around 60,000 researchers working in 114 institutes.

LEADERSHIP EXPERIENCE

AIESEC Poland

May 2018 - Jun 2018

Volunteer, Quality Education

Katowice, Poland

- **Led a team of 11**, presented Chinese culture during the "Global Village" activity in Katowice
- Conducted culture-sharing lessons for **6 weeks**, with **600+ students** from 2 schools, ranging from kindergarten to grade 11 in Bielsko-Biala and Dobieszowice ([facebook link](#))
- Arranged **interactive activities**: Chinese Papercutting, Traditional Chinese songs with 36 students who had **mental disabilities**, and can not speak English

* AIESEC is an international NGO that provides young people with leadership development, cross-cultural global internships, and volunteer exchange experiences across the globe.

MISCELLANEOUS

Interests:

- *Singing:* National Singing Certificate, **level 5**
- *Saxophone:* National Saxophone/Piano Certificate, level 2
- *Photography:* **Third prize** in 2015 Zhejiang Province Photography Competition
- *Radio/Stage host:* **Vice-president** of the School's radio station, (2013-2016)

Awards/Honors:

- **1st place** in "就要大声说" 2017 UofT Chinese **Speech Contest** (Nov 2017)
- **2nd prize** in Chinese **Mathematical Olympiad**, Zhejiang Province (Mar 2016)
- **Outstanding Student** (优秀共青团) of Zhejiang Province (Jun 2015)
- **President** of the Hangzhou City Arts Festival Student Organizing Committee(2014)