

# Luxin Zhang

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## EDUCATION

### Carnegie Mellon University

School of Computer Science

M.S. in Computer Vision

Dec 2019 (Expected) | Pittsburgh, PA

- GPA: 4.15 / 4.33
- Selected Coursework: Machine Learning, Mathematical Fundamentals for Robotics, Computer Vision, Visual Learning & Recognition, Deep Learning

### Peking University

B.S. in Intelligence Science

Jun 2018 | Beijing, China

- GPA: 3.56 / 4.00 (top 20%)
- Selected Coursework:
  - **AI:** Intro to Pattern Recognition, Intro to Artificial Intelligence, Machine Learning, Intro to Intelligent Robots, Human-Computer Interaction, Intelligent Information System
  - **Math:** Probability Theory and Statistics, Signals and Systems, Information Theory

## AWARDS &

## ACHIEVEMENTS

- TA in Introduction to Computer Systems at Peking University
- Vice-Minister of Literature and Art Department in the Student Union of EECS at Peking University
- Wu Si Scholarship (top 10%), Peking University
- Excellent Research Award, Peking University

## SKILLS

**Programming:** Python, C/C++, C#, MATLAB, SQL, PHP, JavaScript

**Platforms & Tools:** PyTorch, Keras, TensorFlow, Linux, Git,  $\LaTeX$

**Interests:** Music, Dancing, Movies, Traveling

## LINKS

🌐 [github.com/lucinezhang](https://github.com/lucinezhang)

**in** [www.linkedin.com/in/luxin-zhang-cmu](https://www.linkedin.com/in/luxin-zhang-cmu)

**f** Lucine Zhang

## OBJECTIVE

Looking for a software engineering or research full-time position for 2020.

## EMPLOYMENT

### Facebook | Software Engineering Intern

May 2019 – Aug 2019 | Cambridge, MA

#### Improvement of an Internal Automatic Deployment Tool

- Worked in Service Foundry team, contributing to an internal tool which is responsible for running the automatic pipelines of building, testing and deployment for many FB's backend services
- Proposed an algorithm to predict the running times of pipelines after analyzing the historical running times; improved the UI for the predicted information display
- Demonstrated that the proposed algorithm performs consistently more accurate and robust than the original one, under different confidence score given by users
- Added new features to the notification system for fast congestion detection of the running pipelines; received many positive feedbacks from users

**Skills:** Python, PHP, JavaScript, SQL

### Microsoft Research Asia | Software Engineering Intern

Sep 2017 – Feb 2018 | Beijing, China

#### Maintenance and Development of LUIS

- Worked on a team to maintain and develop LUIS, a machine learning based service to help users build applications to do language understanding tasks
- Developed a new built-in model to recognize number ranges in texts in both Chinese and English
- Added new features to several existing built-in models, and fixed several bugs to improve the system robustness

**Skills:** C#, Regular Expression, Git

## RESEARCH & PROJECTS

### Carnegie Mellon University | Supervised by Prof. David Held

Jan 2019 – Dec 2019 | Pittsburgh, PA

#### Deep Slope Estimation

- Aimed to estimate point normals in a real-world point cloud to represent the slope or the condition of the road.
- Utilized a modified version of PointNet as baseline and compressed the model with several different methods.
- Demonstrated that the compressed model is able to achieve comparable results with only 10-20% of total parameters and inference 3-5 times faster.

**Skills:** Deep Learning in Point Cloud, Model Compression, PyTorch, Python

### University of Texas at Austin | Supervised by Prof. Dana Ballard

Jul 2017 – May 2018 | Austin, TX

#### Modeling Human Attention for Deep Imitation Learning

- Proposed a multi-channel deep neural network to predict human attention from the eye tracking data collected from human experts playing Atari video games
- The proposed model achieved a high AUC of 0.96; demonstrated that the learned human attention model could help computers imitate humans and perform better

**Skills:** Deep Learning, Keras, TensorFlow, Python, GPU Clusters

## PUBLICATIONS

- **L. Zhang**, R. Zhang, Z. Liu, M. Hayhoe and D. Ballard. Learning Attention Model from Human for Visuomotor Tasks, **AAAI 2018 Student Abstract and Poster Program**. [pdf]
- R. Zhang, Z. Liu, **L. Zhang**, J. Whritner, K. Muller, M. Hayhoe and D. Ballard. AGIL: Learning Attention from Human for Visuomotor Tasks, **ECCV 2018**. [pdf]