

## EDUCATION

- Sep. 2019 – Present    **Ph.D. candidate** in Software Engineering and Intelligent Systems    UNIVERSITY OF ALBERTA, CANADA  
Dept. of Electrical and Computer Engineering
- Overall GPA: **3.93/4.0**
  - Supervisor: Professor Li Cheng
  - Research Interest: Artificial Intelligence, Computer Vision, Human behavior Modelling
- Sep. 2013 – Jul. 2017    **B.Eng.** in Software Engineering (Pilot Program)    JILIN UNIVERSITY, CHINA  
College of Software
- Overall GPA: **89.57/100**
  - Academic Ranking: **1/30** (in the program)

## EXPERIENCE

- Sep. 2019 – Present    Vision and Learning Lab, University of Alberta    EDMONTON, CANADA  
**Research Assistant.** Supervisor: Professor Li Cheng
- Jan. 2021 – Jan. 2022    Huawei Technologies Co., Ltd.    EDMONTON, CANADA  
**Associate Researcher Intern.** Mentor: Wei Lu
- Mar. 2019 – Aug. 2019    Wangle Hulian Beijing Technology Co.Ltd    BEIJING, CHINA  
**Algorithm Engineer.** Mentor: Haibo Gu
- Sep. 2017 – Mar. 2019    Institute of Computing Technology, Chinese Academy of Sciences    BEIJING, CHINA  
**Research Assistant.** Mentor: Juan Cao

## PROJECTS

- Jan. 2021 – Present    **Language Grounded 3D Human Behavior Modeling and Understanding**    UNIVERSITY OF ALBERTA
1. Aimed to synthesize 3d human behaviors from text description or in the inverse way, i.e. understanding human behaviors by texts.
  2. Annotated so-far the largest motion-language dataset, with 15k motions captioned by 50k descriptions.
  3. Developed a framework of generating realistic human motion with temporal VAE and RNNs.
  4. One first-author paper was submitted to CVPR 2022, and another will be submitted to ECCV 2022.
- Sep. 2019 – Jan. 2021    **3D Human Action and Video Generation**    UNIVERSITY OF ALBERTA
1. The topic is to generate human behaviors conditioned on action categories.
  2. Synthesized visually pleasing human motions by a novel VAE-based (i.e. Variational AutoEncoder) network with Lie pose representation, and curated own dataset (Demo Webpage).
  3. Built up a novel pipeline to generate human videos from action type & single image with graphics & machine learning apparatus.
  4. One first-author paper published on ACM MultiMedia 2020<sup>[3]</sup>, and another is accepted to IJCV<sup>[1]</sup>.
- Sep. 2017 – Mar. 2019    **Fake News Detection on Social Media**    ICT, CHINESE ACADEMY OF SCIENCES
1. Designed, implemented and deployed algorithms for a real-time online fake news detection system<sup>†</sup>.
  2. Exploited the roles of emotion, visual/textual content and propagation for news credibility evaluation.
  3. Developed a distributed crawling system that collected over 10 million posts from Weibo platform.
  4. A pre-print first-author paper “Exploiting Emotions for Fake News Detection on Social Media”<sup>[4]</sup>.

<sup>†</sup>The program selected **top 30** students amongst 281 in the 1st school year.

<sup>†</sup>[newsverify.com](http://newsverify.com)

Apr. 2015 – Apr. 2016

**National Undergraduate Innovative Training Project**

JILIN UNIVERSITY

1. Developed a landscape recommendation system based on image retrieval method.
2. Adopted *Bag of Features* for image representation and *KD-Tree* for high-dimensional feature retrieval.
3. Published two papers<sup>[3,4]</sup>, one software copyright<sup>[5]</sup> and was awarded as **Outstanding Project**.

**HONORS & CONTEST**

Nov. 2021	<b>Alberta Graduate Excellence Scholarship</b>	UNIVERSITY OF ALBERTA
Oct. 2016	<b>Qihoo 360 Scholarship</b> (top 5 out of 1000)	JILIN UNIVERSITY
Nov. 2015	<b>National Scholarship</b> (top 5 out of 281)	MINISTRY OF EDUCATION
Dec. 2015	Excellent Student of Jilin University	JILIN UNIVERSITY
2014, 2015	Second-level Scholarship of Jilin University	JILIN UNIVERSITY
2015, 2016	College Excellent Student	JILIN UNIVERSITY
May 2015	The 1 <sub>st</sub> Prize in <i>Jilin Provincial Mathematical Contest in Modeling</i>	JILIN PROVINCE

**SKILLS****Programming Languages:** Python, C, C++, Java, C#, Matlab, R, HTML and Latex.**Technologies:** PyTorch, Keras, SciPy, NumPy, Pandas, Scikit-learn, Weka, Jieba, UNIX, Git, Unity**Natural Languages:** English, Chinese (mother language)**PUBLICATIONS**

1. **Guo Chuan**, Xinxin Zuo, Sen Wang, Xinshuang Liu, Shihao Zou, Minglun Gong, and Li Cheng. "Action2video: Generating Videos of Human 3D Actions." *International Journal of Computer Vision* (2022): 1-31.
2. Shihao Zou, **Chuan Guo**, Xinxin Zuo, Sen Wang, Pengyu Wang, Xiaoqin Hu, Shoushun Chen, Minglun Gong, Li Cheng. "EventHPE: Event-based 3-D Human Pose and Shape Estimation." *IEEE International Conference on Computer Vision*, pp. 10996-11005. 2021.
3. **Guo Chuan**, Xinxin Zuo, Sen Wang, Shihao Zou, Qingyao Sun, Annan Deng, Minglun Gong, and Li Cheng. "Action2Motion: Conditioned Generation of 3D Human Motions." In *Proceedings of the 28th ACM International Conference on Multimedia*, pp. 2021-2029. 2020.
4. **Guo Chuan**, Juan Cao, Xueyao Zhang, Kai Shu, and Miao Yu. "Exploiting emotions for fake news detection on social media." *arXiv preprint arXiv:1903.01728* (2019).
5. Ji, Kaixuan, **Chuan Guo**, Shengfu Zou, Yang Gao, and Hongwei Zhao. "Image Retrieval Algorithm Based on Feature Fusion and Bidirectional Image Matching." In *2015 4th National Conference on Electrical, Electronics and Computer Engineering*. Atlantis Press, 2015.
6. Zou, Shengfu, **Chuan Guo**, Kaixuan Ji, Yang Gao, and Hongwei Zhao. "Design and Implementation of Tourist Landmarks Recommending System." In *2016 3rd International Conference on Materials Engineering, Manufacturing Technology and Control*. Atlantis Press, 2016.
7. Jilin University. *Landscapes Recommendation System V1.0*[CP/CD]. Copyright Number: 2015SR259762