BICHENG XU

Email: bichengx@cs.ubc.ca   Mobile: +1(604)725-9678   Website: www.bicheng-xu.com

EDUCATION BACKGROUND

University of British Columbia (UBC), Vancouver, Canada   Sep/2017 - Present

Master of Science in Computer Science (Supervisor: Prof. Leonid Sigal)

·Grade: 95.8/100

·Awards: 2017-2018 International Tuition Award

Simon Fraser University (SFU), Burnaby, Canada   Sep/2014 - Aug/2017

Bachelor of Science in Applied Sciences (with Distinction)

Major: Computing Science (Dual Degree Program with ZJU), Minor: Mathematics

·GPA: 3.97/4.33

·Awards: 2016 Fall Undergraduate Open Scholarship; 2016 Summer VP Research - Undergraduate Student Research Award - Science; 2016 Spring Undergraduate Open Scholarship; 2014 Fall SFU Zu Ddp Entrance Awards

Zhejiang University (ZJU), Hangzhou, China   Aug/2012 - Aug/2017

Bachelor of Engineering

Major: Computer Science and Technology (Dual Degree Program with SFU)

·GPA: 3.73/4.00

·Awards: 2015 Second-Class Volunteer Award

2013-2014 Third-Class Scholarship; 2012-2013 Third-Class Scholarship

RESEARCH EXPERIENCES

Computer Vision Lab, UBC   Jan/2018 - Present

Research Assistant

·Explored image captioning in a semi-supervised setting

·Employed the idea of self-reconstruction and cycle-reconstruction to utilize the unlabelled images and sentences

Vision and Media Lab, SFU   May/2016 - Aug/2017

Research Assistant

·Carried out research on group activity recognition in videos

·Combined VGG net, recurrent neural network, and connectionist temporal classification (CTC) to recognize a sequence of activities performed by a group of people in a video through supervised learning

Computational Vision Lab, SFU   Feb/2016 - Jun/2016

Part-time Volunteer Research Assistant

·Used Caffe framework to explore the color prediction problem

·Given the information of two lights and the color of one pixel under one light, predicted the color of the same pixel under the other light

Network Modelling Lab, SFU   Jun/2015 - Dec/2015

Part-time Volunteer Research Assistant

·Researched on bus tracking and arrival time prediction in urban environments based on Wi-Fi sensing

·Explored the problem about indoor localization using cellphone's Wi-Fi detection and sensors of light, magnetic field and acceleration

·Programmed on Android platform

PUBLICATIONS

Time Perception Machine: Temporal Point Processes for the When, Where and What of Activity Prediction

·Y. Zhong, **B. Xu**, G.-T. Zhou, L. Bornn, G. Mori

·*arXiv preprint arXiv:1808.04063*, 2018

WiLocator: WiFi-sensing Based Real-time Bus Tracking and Arrival Time Prediction in Urban Environments

·W. Liu, J. Liu, H. Jiang, **B. Xu**, H. Lin, G. Jiang, and J. Xing

·In *Proceedings of IEEE International Conference on Distributed Computing Systems (ICDCS)*, 2016

WORK EXPERIENCES

Ericsson Canada Inc., Burnaby, Canada   Sep/2015 - Dec/2015

Software Developer Coop - IP Operating System Team

·Implemented packets' incoming rate check feature for line cards according to different router platforms using C programming language

·Designed and implemented test cases for packets' incoming and outgoing rate check functions for line cards

COURSE-RELATED PROJECTS

Handwritten Chinese Character Generation via Neural Generative Models   Mar/2018 - Apr/2018

Major Contributor, Machine Learning, UBC

·Exploited generative adversarial networks (GAN), variational auto-encoders (VAE), and their combinations to generate handwritten Chinese characters conditioned on their GBK encodings

·Used PyTorch library to build the neural network models

Evaluating Visual Perception with Bouncing Motion   Nov/2017 - Dec/2017

Main Investigator, Computer Animation, UBC

·Designed a perceptual experiment and developed a novel interactive interface that supports to investigate human perception to bouncing motions

·Displayed a rigid ball falling and bouncing from a hill to detect a just noticeable range of plausible motions that loosely follow the law of physics

·Validated the experiment design and the interface in piloting studies, providing insights to the theory of perception and physical simulation

Distributed File System with Transactional Semantics   Nov/2016 - Dec/2016

Software Designer and Developer, Programming Parallel and Distributed Systems, SFU

·Implemented a distributed file system with transactional semantics following the properties of Atomicity, Consistency, Isolation, and Durability using Java

·Handled omission, byzantine and failstop failures on the client and failstop failures on the server

QuickActivity: A Web-based Activity Post and Participate System   Jun/2015 - Aug/2015

Group Leader and Main Developer, Web-Based Information Systems, SFU

·Developed a web-based self-service activity-posting and activity-attending platform using Django as development framework

·Supported the functions of activity searching, posting, attending, bookmarking and other useful features such as printing activity details as PDF files and exporting activity-attending information as CSV files

SKILLS

Programming:	C, C++, Python, MATLAB, Java, JavaScript, PHP, HTML5, CSS3, HDL (Verilog Hardware Description Language), SQL, Swift (for iOS programming)
DL Frameworks:	PyTorch, TensorFlow, Theano, Caffe
Language:	English, Mandarin Chinese