

BAO XIN CHEN

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EDUCATION

York University, Toronto, ON

M.S. in Computer Science

2019

Focus in Robot Vision

Computer Science & Engineering Outstanding Thesis award

CGPA: 3.8 / 4.0

University of Toronto, Toronto, ON

B.S. Honors in Computer Science

2016

Focus in Artificial Intelligence (refer to my course list)

With High Distinction

CGPA: 3.84 / 4.0

AWARDS

Computer Science & Engineering Outstanding Thesis award, York University

2019

QEII-GSST, York University (CAD \$15,000/yr, I rejected)

2018 & 2019

Best Paper Finalist, ICVS 2017, Shenzhen, China

2017

Best Robotics Paper, CRV 2017, Edmonton, Canada

2017

Lassonde Graduate Entrance Scholarship, York University (CAD \$8,000)

2016 – 2017

Masters Domestic Funding, York University (CAD \$41,666)

2016 – 2018

Graduated with High Distinction, University of Toronto

2016

Norma Brock award, University of Toronto, Woodsworth College (CAD \$1,500/yr)

2014 & 2015

Dean's List, University of Toronto

2013 – 2016

Ontario Principal's Award

2012

EMPLOYMENT

NuPort Robotics, Toronto, ON

Chief Technology Officer (an Autonomous Driving Trucks startup)

2019 – Present

Department of Engineering and Computer Science, York University, Toronto, ON

Teaching Assistant

2016 – 2019

Department of Engineering and Computer Science, York University, Toronto, ON

Research Assistant

2016 – 2019

Supervisor: Professor John K. Tsotsos

Department of Computer Science, University of Toronto, Toronto, ON

Teaching Assistant

2015 – 2016

IBM, Toronto, ON

Software Developer

2014 – 2015

TEACHING EXPERIENCE

York University, Toronto, ON

Teaching Assistant – in “Web Programming”

2018-2019

(Undergraduate)

Met with students in weekly labs and prepared lab slides. As well as, graded written work.

York University, Toronto, ON

Teaching Assistant – to Professor Jarek Gryz in “Introduction to Database Management Systems”

2017-2018

(Undergraduate)

Provided office hours and graded programming projects.

York University, Toronto, ON

Teaching Assistant – to Professor Uyen Trang Nguyen in “Software Tools (C language)”

2017

(Undergraduate)

Met with students in weekly labs and graded written work.

University of Toronto, Toronto, ON

Teaching Assistant – in “Computer Organization (Verilog)”

2016

(Undergraduate)

Met with students in weekly labs and graded written work, including final exam papers.

University of Toronto, Toronto, ON

Teaching Assistant – to Professor Eric Hehner in “Formal Methods in Software Design”

2015

(Undergraduate and Graduate)

Met with students in weekly tutorials and graded written work.

PUBLICATIONS AND PAPERS

1. Bao Xin Chen

"Real-time Online Human Tracking with a Stereo Camera for Person-Following Robots"

Committee: Prof. John K. Tsotsos, Prof. Michael Brown, and Prof. George Z.H. Zhu

Master's thesis, 2019 (Computer Science & Engineering **Outstanding Thesis award**)

2. Bao Xin Chen and John K. Tsotsos

"Fast Visual Object Tracking using Ellipse Fitting for Rotated Bounding Boxes"

in International Conference on Computer Vision (ICCV) Workshop, IEEE, 2019.

3. Xing Zhao, Manos Papagelis, Aijun An, Bao Xin Chen, Junfeng Liu, and Yonggang Hu

"Elastic Bulk Synchronous Parallel for Distributed Deep Learning"

in 19th International Conference on Data Mining (ICDM), IEEE, 2019. **(Oral)**

4. Xing Zhao, Aijun An, Junfeng Liu, and Bao Xin Chen

"Dynamic Stale Synchronous Parallel Distributed Training for Deep Learning"

in 39th International Conference on Distributed Computing Systems (ICDCS), IEEE, 2019, pp. 1508-1517. **(Oral)**

5. Bao Xin Chen, Raghavender Sahdev, Dekun Wu, Xing Zhao, Manos Papagelis, and John K. Tsotsos

"Scene Classification in Indoor Environments for Robots using Word Embeddings"

In International Conference on Robotics and Automation (ICRA) Workshop, IEEE, 2018.

6. Raghavender Sahdev, **Bao Xin Chen**, and John K. Tsotsos

"Indoor Localization in Dynamic Human Environments using Visual Odometry and Global Pose Refinement"

in Computer and Robot Vision (CRV), 2018 15th Conference on, IEEE, 2018, pp. 360-367.

7. **Bao Xin Chen***, Raghavender Sahdev*, and John K. Tsotsos

"Integrating Stereo Vision with a CNN Tracker for a Person-Following Robot"

in 11th International Conference on Computer Vision Systems (ICVS), Springer, 2017, pp. 300-313.

(Oral) (Best Paper Finalist)

8. **Bao Xin Chen***, Raghavender Sahdev*, and John K. Tsotsos

"Person Following Robot Using Selected Online Ada-Boosting with Stereo Camera"

in Computer and Robot Vision (CRV), 2017 14th Conference on, IEEE, 2017, pp. 48-55. **(Oral) (Best Robotics Paper)**

* denote as equal contribution

COURSES

Machine Learning:

Machine Learning and Data Mining	A+	Prof. Raquel Urtasun
Probabilistic Learning and Reasoning	A+	Prof. Richard Zemel
Neural Networks and Machine Learning	A+	Mr. Michael Guerzhoy

Computer Vision:

Introduction to Visual Computing	A+	Mr. Michael Guerzhoy
Introduction to Image Understanding	A+ (Top 1)	Prof. Sanja Fidler

Artificial Intelligence:

Introduction to Artificial Intelligence	A	Prof. Fahiem Bacchus
Embodied Intelligence	A	Prof. John K. Tsotsos

Robotic:

Introduction to Robotics	A+	Prof. Burton Ma
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Others:

Data Analysis and Visualization	A	Prof. Manos Papagelis
Distributed Computing	A-	Prof. Eric Ruppert
Formal Methods in Software Design	A+ (Top 1)	Prof. Eric Hehner
Introduction to Computer Networks	A+	Prof. Peter Marbach
Computer Networks	A+	Prof. Yashar Ganjali

TECHNICAL SKILLS

Programming: C, C++, Shell, Python, Java, JavaScript

Machine Learning Tools: Pytorch, Tensorflow

Computer Vision Tools: OpenCV

Robotics: ROS

Data Analysis: MATLAB

The most frequent IED: Notepad++ on Windows, Kate on Ubuntu