

BAO XIN CHEN

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Country of Citizenship: Canada

EDUCATION

York University, Toronto, ON

M.S. in Computer Science

2019

Focus on Computer Vision for Mobile Robots, Supervisor Prof. John K. Tsotsos

Computer Science & Engineering Outstanding Thesis Award

CGPA: A (equiv. 3.80/4.0, 3.86/4.3, 3.87/4.33)

University of Toronto, Toronto, ON

B.S. Honors in Computer Science

2016

Focus on Artificial Intelligence (Machine Learning & Computer Vision)

With High Distinction

CGPA: 3.84/4.0 (equiv. 4.01/4.3, 4.02/4.33, 88/100, A)

AWARDS

Computer Science & Engineering Outstanding Thesis Award, York University

2020

Queen Elizabeth II Graduate Scholarship in Science and Technology (QEII-GSST)
(CAD \$15,000/yr, I rejected twice)

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

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: Prof. 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” (Undergraduate) **2018-2019**

York University, Toronto, ON

Teaching Assistant – to Professor Jarek Gryz in “Introduction to Database Management Systems” (Undergraduate) **2017-2018**

York University, Toronto, ON

Teaching Assistant – to Professor Uyen Trang Nguyen in “Software Tools (C language)” (Undergraduate) **2017**

University of Toronto, Toronto, ON

Teaching Assistant – in “Computer Organization (Verilog)” (Undergraduate) **2016**

University of Toronto, Toronto, ON

Teaching Assistant – to Professor Eric Hehner in “Formal Methods in Software Design” (Undergraduate and Graduate) **2015**

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	Undergrad 4 th yr	A+	Prof. Raquel Urtasun
Probabilistic Learning and Reasoning	Undergrad 4 th yr	A+	Prof. Richard Zemel
Neural Networks and Machine Learning	Undergrad 3 rd yr	A+	Mr. Michael Guerzhoy

Computer Vision:

Introduction to Visual Computing	Undergrad 3 rd yr	A+	Mr. Michael Guerzhoy
Introduction to Image Understanding	Undergrad 4 th yr	A+ (Top 1)	Prof. Sanja Fidler

Artificial Intelligence:

Introduction to Artificial Intelligence	Undergrad 3 rd yr	A	Prof. Fahiem Bacchus
Embodied Intelligence	Graduate 2 nd yr	A	Prof. John K. Tsotsos

Robotic:

Introduction to Robotics	Graduate 1 st yr	A+	Prof. Burton Ma
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Others:

Data Analysis and Visualization	Graduate 2 nd yr	A	Prof. Manos Papagelis
Formal Methods in Software Design	Undergrad 4 th yr	A+ (Top 1)	Prof. Eric Hehner
Introduction to Computer Networks	Undergrad 3 rd yr	A+	Prof. Peter Marbach
Computer Networks	Undergrad 4 th yr	A+	Prof. Yashar Ganjali

TECHNICAL SKILLS

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

Machine Learning Tools: Pytorch, Tensorflow

Computer Vision Tools: OpenCV

Robotics: ROS, Autonomous Driving Platform

Data Analysis: MATLAB

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