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 (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, York University	2019
QEII-GSST, York University (CAD $15,000, I rejected)	2019 – 2020
QEII-GSST, York University (CAD $15,000, I rejected)	2018 – 2019
Best Paper Finalist, ICVS 2017, Shenzhen, China	2017
Best Robotics Paper, CVR 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
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 **2018 (summer)**
Supervisor: Professor John K. Tsotsos

Department of Engineering and Computer Science, York University, Toronto, ON
Research Assistant (Undergraduate) **2016 (Summer)**
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"
(Undergraduate) **2018-2019**
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"
(Undergraduate) **2017-2018**
Provided office hours and graded programming projects.

York University, Toronto, ON
Teaching Assistant – to Professor Uyen Trang Nguyen in "Software Tools (C language)"
(Undergraduate) **2017**
Met with students in weekly labs and graded written work.

University of Toronto, Toronto, ON
Teaching Assistant – in "Computer Organization (Verilog)"
(Undergraduate) **2016**
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"
(Undergraduate and Graduate) **2015**
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. Tsostso, Prof. Michael Brown, and Prof. George Z.H. Zhu
   Master's thesis, 2019 (Computer Science & Engineering **Outstanding Thesis**)

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+	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
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