

Education

Simon Fraser University <i>PhD. in Computer Science under supervision of Dr. Yasutaka Furukawa</i>	Burnaby <i>May 2018 – Present</i>
Simon Fraser University <i>MSc. in Computer Science under supervision of Dr. Greg Mori</i>	Burnaby <i>Sep 2016 – Apr 2018</i>
University of Toronto <i>Exchange Program in Computer Science (Non-Degree)</i>	Toronto <i>Dec 2013 – May 2015</i>
State University of Campinas <i>BEng. in Computer Engineering under supervision of Dr. Hélio Pedrini</i>	Campinas <i>Jan 2010 – Jun 2016</i>

Industry Experience

Facebook Reality Labs Research <i>Research Intern</i> <ul style="list-style-type: none">○ Dense geometry reconstruction from monocular videos.○ Supervisor: Dr. Chen Liu.	Remote <i>May 2021 – Present</i>
Autodesk Research <i>Research Intern</i> <ul style="list-style-type: none">○ Worked on the house layout generation problem, which led to publications in ECCV'20 and CVPR'21.○ Supervisors: Chin-Yi Cheng and Kai-Hung Chang.	San Francisco <i>Jun 2019 – Sep 2019</i>
Twitch Inc. <i>Computer Vision Intern</i> <ul style="list-style-type: none">○ Developed text detection and recognition algorithms for game streams.○ Supervisors: Dr. Omar Javed and Dr. Saad Ali.	San Francisco <i>May 2017 – Sep 2017</i>
Google Summer of Code 2016 <i>Intern</i> <ul style="list-style-type: none">○ Explored high and low-resolution images techniques for performing high-level inferences over complete tissue medical slides.○ Supervisor: Dr. Lee Cooper.	Remote <i>May 2016 – Sep 2016</i>
Facebook Open Academy <i>Intern</i> <ul style="list-style-type: none">○ Implemented a demo using Eclipse Concierge project and deep learning for recognising images in embedded systems.○ Supervisors: Dr. Jan S Rellermeyer.	Campinas <i>Aug 2015 – Dec 2015</i>
Research Institute Eldorado <i>Software Analyst Trainee</i> <ul style="list-style-type: none">○ Applied machine learning on large data streams using SpringXD, Hadoop, HDFS and MongoDB.	Campinas <i>Aug 2015 – Feb 2016</i>
Google Summer of Code 2015 <i>Intern</i> <ul style="list-style-type: none">○ Worked on research for using deep learning to analyze cancer pathology images.○ Supervisors: Dr. Lee Cooper.	Remote <i>May 2015 – Sep 2015</i>
University of Toronto <i>Intern</i> <ul style="list-style-type: none">○ Developed the Android and iOS mobile apps for classifying images using convolutional neural networks.○ Supervisors: Dr. Ruslan Salakhutdinov and Charlie Tang.	Toronto <i>May 2014 – Sep 2014</i>
IBM Research <i>Research Intern</i> <ul style="list-style-type: none">○ Data visualization using D3 in JavaScript.○ Supervisor: Dr. Victor Cavalcante.	Hortolândia <i>Jan 2013 – Dec 2013</i>

Academic Experience

SGI - Massachusetts Institute of Technology <i>Teaching Assistant for the Summer Geometry Institute (SGI) hosted by Dr. Justin Solomon.</i>	Remote <i>Jul 2021 – present</i>
Gruvi Lab - Simon Fraser University <i>Research Assistant under supervision of Dr. Yasutaka Furukawa</i>	Burnaby <i>Sep 2018 – present</i>
Vision and Media Lab - Simon Fraser University <i>Research Assistant under supervision of Dr. Greg Mori</i>	Burnaby <i>Sep 2016 – present</i>
Cooper Lab - Emory University <i>Research Assistant under supervision of Dr. Lee Cooper</i>	Remote <i>Sep 2015 – Apr 2016</i>
Visual Informatics Laboratory - State University of Campinas <i>Research Assistant under supervision of Dr. Hélio Pedrini</i>	Campinas <i>Jun 2015 – Jun 2016</i>
Machine Learning Lab - University of Toronto <i>Research Assistant under supervision of Dr. Ruslan Salakhutdinov</i>	Toronto <i>Jun 2015 – Jun 2016</i>
NIED - State University of Campinas <i>Research Assistant under supervision of Dr. Cecilia Baranauskas</i>	Campinas <i>Jan 2011 – Jan 2012</i>

Awards, Grants and Competitions

CIFAR Deep learning and Reinforcement Learning Summer School <i>One of the 300 attendees out of the 1200 applicants across the globe for the CIFAR DLRL summer school.</i>
Borealis AI Graduate Fellowship 2021 <i>Granted to only 10 graduate students across Canada each year.</i>
SFU Research Assistant Scholarship <i>Summer 2018, Spring 2017, Spring 2018</i>
SFU Teaching Assistant Scholarship <i>Fall 2016, Fall 2017</i>
SFU Computing Science Graduate Fellowship <i>Fall 2016, Spring 2019, Spring 2021</i>
SportsHack 2014 <i>First Prize - Award valued at \$15,000 in prizes + software & support.</i>
Smart Health Hackaton 2015 <i>Third Prize</i>
Science Without Border Scholarship <i>From Winter 2013 to Spring 2015</i>
Research Assistant Scholarship <i>Winter 2011</i>

Services

Reviewer
ECCV 2020, CVPR 2021, SIGGRAPH 2021, ICCV 2021, NeurIPS 2021

Publications

- [1] **N. Nauata**, S. Hosseini, KH. Chang, H. Chu, CY. Cheng, and Y. Furukawa. "Generative Adversarial Layout Refinement Network towards Intelligent Computational Agent for Professional Architects". In: *CVPR (Poster) 27% Acceptance Rate* (2021).
- [2] F. Zhang, X. Xu, **N. Nauata**, and Y. Furukawa. "Structured Outdoor Architecture Reconstruction by Exploration and Classification". In: *Under Review* (2021).
- [3] **N. Nauata**, KH. Chang, CY. Cheng, G. Mori, and Y. Furukawa. "HouseGAN: Graph-constrained House Layout Generation via Adversarial Neural Networks". In: *ECCV (Oral) 2% Acceptance Rate* (2020).
- [4] **N. Nauata** and Y. Furukawa. "Vectorizing World Buildings: Planar Graph Reconstruction by Detecting Primitives and their Relationships". In: *ECCV (Poster) 27% Acceptance Rate* (2020).
- [5] ***N. Nauata**, *F. Zhang, and Y. Furukawa. "Conv-MPN: Convolutional Message Passing Neural Network for Structured Outdoor Architecture Reconstruction". In: *CVPR (Poster) 22% Acceptance Rate* (2020).

- [6] **N. Nauata**, H. Hu, G. T. Zhou, Z. Deng, Z. Liao, and G. Mori. "Structured Label Inference for Visual Understanding". In: *IEEE Transactions on Pattern Analysis and Machine Learning (TPAMI)* (2019).
- [7] **N. Nauata**, J. Smith, and G. Mori. "Hierarchical Label Inference for Video Classification". In: *CVPR Workshop*. 2017.
- [8] S. Yousefi, C. Song, **N. Nauata**, and L. Cooper. "Learning Genomic Representations to Predict Clinical Outcomes in Cancer". In: *ICLR Workshop*. 2016.
- [9] V. Cavalcante, H. Candello, C. Pinhanez, A. Braz, F. Amorim, and **N. Nauata**. "Using Visual Analytics to Diagnose Productivity and Quality Issues on IT Service Pools". In: *Maximizing Management Performance and Quality with Service Analytics - Book Chapter 8*. 2015.
- [10] V. Cavalcante, A. P. Appel, M. Vieira, V. Santana, R. Paula, and **N. Nauata**. "Enhancing teamwork by optimizing collaboration". In: *APMOD*. 2014.
- [11] V. Cavalcante, S. Bianchi, A. Braz, F. Amarin, and **N. Nauata**. "Investigating Business Needs Fluctuations on IT Delivery Operations". In: *SRII*. 2014.