

## Brian Gauch

35 Charles St W Apt 410 • Toronto, ON, M4Y 1R6 • bgauch72@gmail.com • 479-856-8467

Citizenships: US, Canada • Links to all publications available at: <http://www.briangauch.com/>

### EDUCATION

- Vanderbilt University** Nashville, TN  
Master of Science, Computer Science. GPA: 3.61 May 2019
- Relevant coursework: Machine Learning, Design and Analysis of Algorithms, Graph Algorithms, Advanced AI, Computational Economics, Computer Vision, Human-Computer Interaction
- Washington University in St. Louis** St. Louis, MO  
Bachelor's degree, Computer Science. GPA: 3.47 May 2014
- Relevant coursework: Parallel and Sequential Algorithms, Artificial Intelligence, Computer Graphics, Decision Under Risk and Time, Object Oriented Software Development

### PUBLICATIONS

- **Brian Gauch**, Richard Alan Peters. "Animation Generation with a Low-Dimensional Simplicial Complex" *International Conference on Pattern Recognition and Artificial Intelligence* 2018
- Jiarui Gan, Bo An, Yevgeniy Vorobeychik, and **Brian Gauch**. "Security Games on a Plane" *AAAI Conference on Artificial Intelligence* 2017
- **Brian Gauch**, Gautam Biswas. "Behavior Changes across Time and between Populations in Open-Ended Learning Environments" *International Conference on Intelligent Tutoring Systems* 2016
- John Siler Kinnebrew, **Brian Gauch**, James Segedy, Gautam Biswas. "Behavior Changes across Time and between Populations in Open-Ended Learning Environments" *International Conference on Artificial Intelligence in Education* 2016

### EXPERIENCE

- Vanderbilt University** Nashville, TN  
**Teaching Assistant** May 2016 – December 2018
- TAed for the following courses: Machine Learning, Intermediate Software Design, Artificial Intelligence, Discrete Structures, Programming and Problem Solving
  - Developed a large (~10k lines) C++ project for my own research involving dimensionality reduction, graph theory, and animation generation
- Vanderbilt University** Nashville, TN  
**Research Assistant** August 2014 – April 2016
- Led the continued development of a large (~50k lines) Java application for educational research
  - Coordinated in-class user studies with middle school students, analyzed and published results
- SOAPware Inc.** Fayetteville, AR  
**Software Development Internship** May 2014 – August 2014
- Gained web development experience with a small, agile company
- Centene Corporation** St. Louis, MO  
**IT Internship** May 2013 – August 2013
- Built large/complex queries for business logic using SQL and Java
- J.B. Hunt Corporation** Fayetteville, AR  
**IT Applications Internship** May 2012 – August 2012
- Helped create a visualization of truck routes and locations using Java

Languages, in order of familiarity, descending: Java, C, C++, Python, MATLAB, SQL, Javascript, PHP  
Tools/Libraries/Stacks: GIT, WEKA, Scikit-learn, OpenCV, AWS, Armadillo, Eigen, LAMP