Jace D. Robinson Resume

Location: Dayton, Ohio
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Education

Wright State University Dayton, OH
M.S. in Computer Science (GPA: 4.0) Expected December 2017
B.S. (Hons.) Mathematics and **B.S.** (Hons.) Computer Science *summa cum laude* (GPA: 3.98) May 2016

Experience

Wright State University, Dayton, OH
Graduate Research Assistant August 2016-Present

- Creating a novel random graph model for dynamic networks built on stochastic block model and state-space model with applied problem of anomaly detection on macro movement in massive geospaces (thesis project with advisor Dr. Derek Doran)
- Knowledge of bayesian statistics, kalman filters, network models, artificial neural networks, general linear models, markov models, expectation maximization, nonlinear optimization and markov chain monte carlo
- Assisted advisor in writing grant proposal based on thesis project for Bloomberg Data Science Grant
- Detected and presented significant differences in features between public and private universities through classification problem on U.S. College Scorecard dataset using bayesian logistic regression (R)

Undergraduate Student 2012-2016

- Programmed software to data mine Twitter, identify dangerous incidents by natural language processing, cluster using geolocations, and visualize results (Java, R)
- Data mined Twitter and created visualizations of popular political candidates and news stories surrounding the 2016 presidential primary election (Python, Tableau, HTML)
- Chair of Dean's Student Advisory Board where I organized numerous events to promote community involvement in STEM and regularly spoke to high school families about Wright State college experience
- Research assistant in abstract algebra creating computational software to discover new difference sets
- Teaching assistant for Calculus I-II, Discrete Mathematics, and College Algebra

Oak Ridge Institute for Science and Education, Wright Patterson Air Force Base, OH
Federal Contractor 2015-2016

- Developed original parallel iterative closest point algorithm using k-d trees and Delaunay triangulation on GPU to align two point clouds in real-time (C, C++, CUDA)
- Algorithmic and programming improvements to Gauss-Newton nonlinear optimization algorithm applied on noisy line-of-sight sensor measurements (MATLAB)
- Additional contributions to projects of modeling web traffic using Markov Chains (MATLAB) and simulating radiation patterns of antennas in CST and SATCOM software
- Presented monthly extended technical presentations to project sponsors

Publications

1. **Robinson J.**, et al. Parallelized Iterative Closest Point for Autonomous Aerial Refueling. *ISVC* 2016.
2. Burchett L., **Robinson J.**, et al. Automated aerial refueling: Parallelized 3d iterative closest point. *IEEE NAECON* 2016.
3. Levy D., Roos J., **Robinson J.**, et al. Non Linear Optimization Applied to Angle-of-Arrival Satellite Based Geo-location for Biased and Time-Drifting Sensors. *IAPRSSIS* 2016.
4. Phillips B., **Robinson J.**, Some New Almost Difference Sets Via Finite Fields. *ACM Communications in Computer Algebra* 2015.
5. **Robinson J.**, Investigation of Algebraic Combinatorics through Difference Sets. Undergraduate Thesis. *Wright State Honors Department* 2016

Awards

- Valedictorian Full Tuition Scholarship (Undergraduate)