# **JAYSON BOUBIN**

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#### CAREER OBJECTIVE

To perform high impact research in the areas of High Performance Computing, Automation, and Computer Systems

### **EDUCATION**

- PhD student in Computer Science, The Ohio State University, August 2017-present
- B.S in Computer Science, Miami University, May 2017

## RESEARCH EXPERIENCE

- High Performance Computing research lab assistant working through the Miami University FYRE program under mentor Dr. Dhananjai Rao (Sep. 2013-May 2014). Worked on algorithm optimization on a multiple node Linux computer cluster using C++.
- Internship at the Air Force Institute of Technology performing novel research with mentor Maj. Christina Rusnock, Ph.D. (May 2014 July 2017). Research includes the creation of discrete event simulations in the areas of cyber security, applied neuroscience and automation to answer research questions. I prepared lecture materials for graduate level courses, wrote academic papers, posters, and presentations, and collaborated with excellent researchers on popular research problems.

#### CONFERENCE PRESENTATIONS

- Boubin, J.G, Bondurant, P.M, Rao D.M (2014, April) *Dynamic Process Migration in Agent Based Simulation*. Poster presented at the Undergraduate Research Forum, Miami University, Oxford, Ohio.
- Boubin, J.G, Rusnock, C,F (2014,July) Modeling Cognitive Workload and Fatigue for Defensive Cyber Security Operations. Poster presented at the AFIT Summer Intern Poster Session, Air Force Institute of Technology, Wright Patterson Air Force Base, Ohio.
- Boubin, J,G Rusnock, C,F(2015,July) Eliciting an Algorithm to Replicate Human Trust In Automation In The Domain of Compliance, Poster presented at the AFIT Summer Intern Poster Session, Air Force Institute of Technology, Wright Patterson Air Force Base, Ohio.
- Boubin, J,G Rusnock, C,F, Miller, M(2015 November) Simulating Compliance and Reliance, Talk presented at the Cincinnati-Dayton INFORMS Technical Symposium, Wright State University, Ohio
- Boubin, J,G Rusnock, C,F, Miller, M(2015 November) Eliciting an Algorithm to Replicate Human Trust In Automation In The Domain of Reliance, Poster presented at the Dayton Engineering Sciences Symposium, Wright State University, Ohio
- Boubin, J,G Rusnock, C,F(2016 May) *Quantifying and Evaluating Trust in Automated Systems*, Talk presented at the ISERC 2016 conference, Anaheim, California. (Presented by Maj. Christina Rusnock, Ph.D.)
- Boubin, J.G, Macfarland, J.W, Kirsten, B.S, Wilson, C(2017 May) Scholarly Commons Capstone, Poster presented at the Miami University Senior Design Expo, Oxford, Ohio.

#### **AWARDS AND HONORS**

Ohio State Computer Science Department Fellowship, 2017-2018 academic year

# PUBLISHED ABSTRACTS AND CONFERENCE PAPERS

- Jayson G. Boubin, Christina F. Rusnock, Jason M. Bindewald: Quantifying Compliance and Reliance Trust
   Behaviors to Influence Trust in Human-Automation Teams. HFES 2017
- Christina F. Rusnock, Jayson G. Boubin, Joseph J. Giametta, Tyler J. Goodman, Anthony J. Hillesheim,
   Sungbin Kim, David R. Meyer, Michael E. Watson: The Role of Simulation in Designing Human-Automation
   Systems. HCI (14) 2016: 361-370
- Jayson G. Boubin, Christina F. Rusock: Measuring Human Compliance and Reliance in Automated Systems.
   IIE 2016. (Abstract)

#### PROFESSIONAL EXPERIENCE

Air Force Institute of Technology, Wright Patterson Air Force Base, Ohio SOCHE Intern, May 2014 – December 2015

ORISE Intern, January 2016 – July 2017

• Performed novel research in the fields of computer science and human factors. Worked with graduate students and faculty to generate conference and journal publications as well as conference presentations.

Miami University, Oxford, Ohio Teaching Assistant, January 2017-May 2017

Led student help sessions and graded for CSE 381 "Systems 2" for Dr. Jianhui Yue.

Miami University, Oxford, Ohio Senior Capstone Project, August 2016-May 2017

• Created a profile module for an open source media repository called Dspace for the Miami University library system. The project is being used by the Miami University Scholarly Commons group, and will soon be added to DSpace as a whole.

#### **AFFILIATIONS**

- IEEE, Miami University Chapter member
- ACM, National Student member
- ACM ICPC contestant, Miami University Programming Team 2014

# ADDITIONAL SKILLS

- Experience in the Java, C/C++, C#
- Experience using Linux, Vim, Bash, and Git
- High performance software development experience using MPI, OpenMP, and profiling with Valgrind and GCC
   PGO
- Statistical Analysis using R, Matlab and Minitab