

EDUCATION	<i>Ph.D. Computer Science</i> , Iowa State University, 2016– present <i>M.S.E. Embedded Systems</i> , University of Pennsylvania, 2013–2015 <i>B.E. Instrumentation and Control</i> , University of Delhi, 2009–2013	
EXPERIENCE	Research Assistant , Iowa State University Aug 2015 – present <i>Symbolic Model Checking of Large Design Spaces</i> Research Intern , Fondazione Bruno Kessler, Trento, Italy May 2015 – Aug 2015 <i>Formal Verification of NextGen Air Traffic Controller</i> Embedded Systems Programmer , University of Pennsylvania Jan 2014 – Apr 2015 <i>Wireless and Invasive Brain-Computer Interfaces</i> Undergraduate Intern , Texas Instruments, New Delhi, India Dec 2011 – Apr 2013 <i>ARM-based Microcontroller Development Platforms</i>	
PUBLICATIONS	<i>Peer-Reviewed Conferences</i> C1 Rohit Dureja and Kristin Y. Rozier. FuseIC3: An Algorithm for Checking Large Design Spaces. In <i>Proceedings of Formal Methods in Computer-Aided Design (FMCAD)</i> , Vienna, Austria, October 2017. IEEE/ACM <i>Workshops and Posters</i> P2 Rohit Dureja and Kristin Y. Rozier. From One to Many: Checking A Set of Models. In <i>Formal Methods in Computer-Aided Design (FMCAD) Student Forum</i> , Austria, Vienna, October 2017 W3 Rohit Dureja, Eric W. D. Rozier, and Kristin Y. Rozier. A Case Study in Safety, Security, and Availability of Wireless-Enabled Aircraft Communication Networks. In <i>Proceedings of AIAA Aviation Technology, Integration, and Operations Conference (AVIATION)</i> , Denver, Colorado, USA, June 2017. AIAA P4 Rohit Dureja and Kristin Y. Rozier. Comparative Safety Analysis of Wireless Communication Networks in Avionics. In <i>Formal Methods in Computer-Aided Design (FMCAD) Student Forum</i> , Mountain View, California, USA, October 2016 <i>Books and Book Chapters</i> B5 Dhananjay V. Gadre, Rohit Dureja, and Shanjit S. Jajmann. <i>Getting Started with Stellaris ARM Cortex-M Embedded Processors</i> . Universities Press, 2013 <i>Under Submission</i> C6 Rohit Dureja and Kristin Y. Rozier. More Scalable LTL Model Checking via Discovering Design-Space Dependencies (D^3)	
TECHNICAL PRESENTATIONS	<ul style="list-style-type: none"> “Scalable Design Space Analysis for Future Traffic Management.” CPS Challenges for Unmanned and Autonomous Systems Workshop, Washington, DC, November 14, 2017. “Making Undecidable Problems Decidable in Practice.” Software Engineering Seminar, Department of Computer Science, Iowa State University, Ames, IA, October 12, 2017. “FuseIC3: An Algorithm for Checking Large Design Spaces.” Formal Methods Seminar, Department of Aerospace Engineering, Iowa State University, Ames, IA, September 28, 2017. 	
SELECTED COURSE PROJECTS	<ol style="list-style-type: none"> <i>UAV Security Exploit</i>. Designed a one-click man-in-the-middle (MITM) attack with ARP poisoning to acquire unauthenticated control of a drone. <i>Modeling and Verification of a Pacemaker</i>. Modeled a pacemaker using UPPAAL and synthesized code to run on a 32-bit ARM microcontroller. <i>Veterinary Patient Records</i>. Gathered requirements for a patient record system; culminated in a complete requirements specification document, and a prototype. 	

4. *Network Sniffer*. Designed a powerful network packet sniffer capable of collecting socket-connection information and data, SMTP messages and profile connections.
5. *Viral Marketing*. Experimentally evaluated the correlation between social network and spread of influence models to maximize information spread.
6. *US Presidential Elections*. Designed a predictor model to predict popular vote and electoral college winner of 2016 US presidential elections.

TECHNICAL SKILLS

Languages & Software: C/C++, Python, Haskell, \LaTeX , Matlab.
Technologies: Git, CMake, HTML/CSS, SQL, MongoDB.

SKILLS

Reviewer: TACAS 2018, TACAS 2017, NFM 2016

EXTERNAL TRAINING

1. Marktoberdorf School on Dependable Software Systems Engineering, 2016.
2. SRI International Sixth Summer School on Formal Techniques, 2016
3. RiSE & LogiCS Spring School on Logic and Verification, 2016

AWARDS AND HONORS

- Travel grant to Formal Methods in Computer Aided Design (FMCAD) Conference 2016, 2017.
- Travel grant and registration waiver to Marktoberdorf School.
- Microsoft Research travel grant to Verification Mentoring Workshop (VMW) 2016 and Computer Aided Verification (CAV) Conference 2016.
- Carnegie Mellon University travel grant to CPS V&V Workshop 2016.
- National Science Foundation travel grant to CPS Week 2016.
- *Best Design* and *Top 10 hack* at HackPrinceton 2013.
- University of Delhi academic scholarship, 2009-2013.