

# Matthew Butler

918.512.1313  
✉ matthew-butler@utulsa.edu  
🌐 <http://www.noeticmech.net>

---

## Education

- 2019 **Ph.D. in Computer Science**, *The University of Tulsa*  
Thesis: An Intrusion Detection System for Heavy-Duty Vehicle Networks
- 2011 **M.S. in Computer Science**, *The University of Tulsa*  
Thesis: Dynamic Risk Assessment Access Control
- 2008 **B.S. in Computer Science**, *The University of Tulsa*  
Minors: Mathematics, German

---

## Academic Experience

- August 2024–Present **Adjunct Professor**, *The University of Tulsa*  
Teaching undergraduate courses, including Introduction to Python Programming, Data Structures, and High Performance Computing.
- Spring 2017, 2014, 2013, 2012, 2011 **Teaching Assistant**, *The University of Tulsa*
- Taught course units on Defensive Programming for CS 7183: Information System Security Engineering
  - Developed a code review project focused on identifying the information flow between a system and external actors and finding potential vulnerabilities.
- Summer 2016 **Summer Camp Teacher**, *The University of Tulsa*
- Taught week-long, full-day summer camp sessions on cryptography, cryptanalysis and cybersecurity for middle school and high school students
  - Reworked an existing curriculum for middle school students for high school students
  - Integrated basic bash programming for hands-on exercises involving encryption, decryption, and cryptanalysis.
- August 2008–August 2012 **Research Assistant**, *The University of Tulsa*
- Researched security engineering, trusted operating systems, and network security
  - Developed security engineering curriculum and short courses for local businesses
  - Maintaining TU's Security Engineering Lab
  - Teaching Java and Python to summer research participants
  - Managing undergraduate participants in TU's summer research program
- August 2009–May 2010 **Teaching Assistant**, *The University of Tulsa*
- Taught lab sections for Application Programming and Algorithms (Fall 09) and Scientific Programming (Spring 10)
  - Developed lab curriculum for Application Programming and Algorithms
  - Graded homework and lab assignments

---

## Consulting Experience

- November 2015–December 2015 **Source Code Reviewer**, *Antonelli, Harrington & Thompson LLP*  
Verifying that source code contained specific functionality relevant to a patent case

December 2014–July 2015     **Risk Assessment Consultant**, *Oklahoma City-County Health Department*  
Analyzing the information assurance stance of the OCCHD network and creating a prioritized list of recommendations for better security based on findings and organizational mission and priorities

---

## Peer-reviewed Publications

- [1] Matthew Butler. An intrusion detection system for heavy-duty truck networks. In *Proceedings of the 12th International Conference on Cyber Warfare and Security*, pages 399–406, Dayton, OH, 2017.
- [2] Matthew Butler, Peter Hawrylak, and John Hale. Graceful privilege reduction in rfid security. In *Proceedings of the Seventh Annual Workshop on Cyber Security and Information Intelligence Research*. ACM, 2011.
- [3] Matthew Butler, Steven Reed, Peter J Hawrylak, and John Hale. Implementing graceful rfid privilege reduction. In *Proceedings of the Eighth Annual Cyber Security and Information Intelligence Research Workshop*. ACM, 2013.
- [4] Peter J Hawrylak, Steven Reed, Matthew Butler, and John Hale. The access of things: Spatial access control for the internet of things. In *The Internet of Things: Breakthroughs in Research and Practice*, pages 507–526. IGI Global, 2017.
- [5] George Louthan, Warren Roberts, Matthew Butler, and John Hale. The blunderdome: An offensive exercise for building network, systems, and web security awareness. In *Proceedings of the 3rd Workshop on Cyber Security Experimentation and Testing*, Washington, D.C., 2010. USENIX.
- [6] Brandon Pollet, Matthew Butler, and John Hale. Dynamic policy enforcement in a network environment. In *Proceedings of the Security Enhanced Linux Symposium*, Baltimore, MA., 2006.

---

## Community & Volunteering

2015–Present     **Chanter**, *St. Antony Orthodox Christian Church*

- Singing and reading at all regular, festal, and sacramental services.
- Providing chanters and choir director with the appropriate service notes and sheet music as needed.