

## Jesse Hartloff, PhD

Assistant Professor of Teaching  
Department of Computer Science and Engineering

### Work Address

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### Education

PhD, Computer Science, University at Buffalo, May 2015  
BS, Computer Science and Business Administration, University at Buffalo, May 2011  
BA, Mathematics, University at Buffalo, May 2011

### Professional Experience

<b>Assistant Professor of Teaching</b> Dept. of Computer Science and Engineering	University at Buffalo, Buffalo, NY Fall 2015 - Present
<b>Adjunct Professor</b> Dept. of Computer Science and Engineering	University at Buffalo, Buffalo, NY Summer 2013, 2015
<b>Teaching Assistant</b> Dept. of Computer Science and Engineering	University at Buffalo, Buffalo, NY Fall 2011

### Honors and Awards

**Teaching Innovation Award – Teaching Faculty**, Dept. of Computer Science and Engineering, 2017  
**Presidential Scholarship**, Dept. of Computer Science and Engineering, 2011-15  
**Presidential Scholarship**, School of Engineering and Applied Sciences, 2011-12  
**Senior Scholarship**, Dept. of Computer Science and Engineering, 2010-11  
**Ronald E. McNair Scholarship**, McNair Scholars Program, 2009-11  
**John G. and Elizabeth Gibbons Scholarship**, School of Management, 2010-11  
**Challen Family Scholarship**, School of Management, 2009-10

### Publications

[7] J. Winikus, L. Ziarek, C. Alphonse, J. Hartloff. Improving Retention and Confidence Through Cross-Course Collaborative Project-Based Learning. In *Frontiers in Education*, IEEE, 2018.  
[6] J. Hartloff, A. Mandal and A. Roy. Privacy preserving technique for set-based biometric authentication using reed-solomon decoding. In *BIOSIG*, 2015.  
[6-p] J. Hartloff, A. Mandal, and A. Roy. Privacy preserving set-based biometric authentication. U.S. Patent Application No. 14/560,435, 2014.  
[5] J. Hartloff, M. Morse, B. Zhang, T. Effland, J. Cordaro, J. Schuler, S. Tulyakov, A. Rudra and V.Govindaraju. A multiple server scheme for fingerprint fuzzy vaults. In *CVPR Workshops*, 2015.

- [4] A. James, G. Tauer, A. Czerniejewski, R. Brown, J. Hartloff, J. Chaves and M. Sudit. Entity resolution using cloud computing. In *SPIE Next-Generation Analyst III*, 2015.
- [3] M. Morse, J. Hartloff, T. Effland, J. Schuler, J. Cordaro, S. Tulyakov, A. Rudra, and V. Govindaraju. Secure fingerprint matching with generic local structures. In *CVPR Workshops*, 2014.
- [2] T. Effland, M. Scheggenburger, J. Schuler, B. Zhang, J. Hartloff, J. Dobler, S. Tulyakov, A. Rudra, and V. Govindaraju. Secure fingerprint hashes using subsets of local structures. In *SPIE Defense, Security, and Sensing*, 2014.
- [1] J. Hartloff, J. Dobler, S. Tulyakov, A. Rudra and V. Govindaraju. Towards fingerprints as strings: Secure indexing for fingerprint matching. In *International Conference on Biometrics (ICB)*, 2013.
- [0] J. Hartloff, M. Bileschi, S. Tulyakov, J. Dobler, A. Rudra and V. Govindaraju. Security analysis for fingerprint fuzzy vaults. In *SPIE Defense, Security, and Sensing*, 2013.

### Thesis

“Template Security in Fingerprint Matching Systems”, Doctoral thesis, University at Buffalo, 2015

### **Technical Presentations**

- [P12] Using Game Elements to Teach Computer Science. In *Serious Play Conference*, 2018.
- [P11] Plenary Panel member: The Future of Serious Games. In *Serious Play Conference*, 2018.
- [P10] Privacy preserving technique for set-based biometric authentication using reed-solomon decoding. In *BIOSIG*, 2015.
- [P9] A multiple server scheme for fingerprint fuzzy vaults. In *CVPR Workshops*, 2015.
- [P8] Towards fingerprints as strings: Secure indexing for fingerprint matching. In *International Conference on Biometrics (ICB)*, 2013, poster.
- [P7] Security analysis for fingerprint fuzzy vaults. In *International Conference on Biometrics (ICB) Doctoral Consortium*, 2013, poster.
- [P6] Graduate student panel. In *McNair Research Conference*, 2013.
- [P5] Security analysis for fingerprint fuzzy vaults. In *SPIE Defense, Security, and Sensing*, 2013.
- [P4] Traitor tracing and revocation for broadcast encryption schemes. In *Coding, Complexity, and Sparsity Workshop (SPARC)*, 2013, poster.
- [P3] Matching methods for privacy preserving indexed fingerprint templates. In *Center for Identification Technology Research (CITeR)*, 2013, poster.
- [P2] Secure fingerprint matching. In *Cryptography and Principles of Security Summer Schools at Penn State*, 2012, poster.
- [P1] Coding theory. In *McNair Research Conference*, 2011.
- [P0] Issues in streaming algorithms for formal languages. In *McNair Research Conference*, 2010.

### **University Service**

#### Department Committees

- Member, Intro Course DFRW Working Group, 2019 - Present
- Member, Introductory Courses Committee, 2016 - Present
- Member, Teaching Effectiveness and TA Training Committee, 2016 - Present
- Member, Undergraduate Academics Committee, 2015 - Present
- Chair, Automation Committee, 2017 - 2019
- Member, Theory Committee, 2015 - 2016
- Member, Teaching Faculty Committee, 2015 - 2017
- Member, Computer Science Curriculum Revision Committee, 2015 - 2017

## Teaching

CSE113: Introduction to Computer Science for Non-Majors

- 180 students / Spring 2016

CSE115: Introduction to Computer Science I

- 310 students / Spring 2017
- 650 students / Fall 2017 (Co-taught with Dr. Carl Alphonse)
- 388 students / Spring 2018
- 700 students / Fall 2018 (Co-taught with Dr. Carl Alphonse)

CSE116: Introduction to Computer Science II

- 386 students / Spring 2019
- 196 students / Fall 2019
- 377 students / Spring 2020
- 229 students / Fall 2020
- 196 students / Spring 2021
- 248 students / Fall 2021

CSE199: First Year Seminar

- 400 students / Fall 2016 (Collaboratively taught)
- 559 students / Fall 2017 (Collaboratively taught)
- 644 students / Fall 2018 (Collaboratively taught)
- 599 students / Fall 2019 (Collaboratively taught)
- 739 students / Fall 2020 (Collaboratively taught)

EAS240: Introduction to Programming for Engineers

- 60 students / Spring 2016 (Co-taught with Dr. Kris Schindler)

CSE250: Data Structures

- 180 students / Fall 2015
- 150 students / Spring 2016

CSE312: Introduction to Web Applications

- 16 students / Summer 2019
- 100 students / Spring 2020
- 120 students / Spring 2021
- 97 students / Fall 2021

CSE331: Introduction to Algorithms

- 8 students / Summer 2013
- 12 students / Summer 2015
- 38 students / Summer 2018
- 18 students / Summer 2019

CSE442: Software Engineering

- 177 students / Fall 2015
- 9 students / Summer 2016
- 193 students / Fall 2016
- 130 students / Fall 2017
- 104 students / Spring 2018
- 124 students / Spring 2019
- 179 students / Fall 2020
- 142 students / Fall 2021