

IanRiley

graduate assistant

about

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github/ttowncompiled

interests

software development, application framework development, software architecture && design patterns, machine learning, distributed algorithms && mobile ad-hoc networks research

education

'16	PhD Student in Computer Science gpa: 3.86	the University of Tulsa
'13-'16	BS Computer Science and Mathematics gpa: 3.51	the University of Tulsa

experience

'15	Google MTV Designed and implemented the TacticalJS data persistence library for Angular. Tactical was my first attempt at creating the MVP for a new project using formal design patterns and techniques.	SWE intern on Angular
'14	Google CAM Implemented an internal UI to improve the workflow for creating pipelines of structured data for search. This was my first opportunity to think critically about end user experience and test driven design	EP intern on Pinpoint

research

- '17-'18 **Resilient Mission Planning** graduate research
Designed an algorithm that will assign tasks to a number of deployed assets, and will unassign/reassign tasks as necessary in order to best satisfy the constraints of the missions such as drone survival, intel retrieval, etc.
- '16-'17 **Pump Profiling** graduate research
Developed a prediction algorithm that would use machine learning to study gas pump data, create a gas pump profile, and then predict when the gas pump was going to fail.
- '16 **Red** undergraduate research
Evaluation of Red, a bioinformatics tool for detecting repeats denovo in nucleotide sequences.
- '13-'14 **RFID Research Grant** undergraduate research
Developed protocols to concisely and securely store standard, adult vaccination information on 2000 bit RFID tags.
- '13 **Tulsa Undergraduate Research Challenge** undergraduate research
Worked with a small team to design a dynamic risk access control system. This system extended the spatial access control model by employing PGMs such as Bayesian networks and Markov chains for decision making.

courses taught

- '16 **Software Development and Industrial Practices** cs 3862
I headed a small team of young students through the process of designing and implementing, using industrial techniques and design patterns, an in-browser module loader for JavaScript applications, and an online social media application.
- '15 **Software Tools and Practices** cs 3861
I instructed a small group of young students on proper Agile development, Test driven design, and the use of Version Control systems as they each implemented their own code linter.

organizations

- '14-'15 **Linux Users Group** president
Conducted several meetings and headed a few projects over the course of the year which included research ventures into topics such as code reusability, workstation efficacy, net neutrality, and even bitcoins.
- '13-'15 **Tulsa Web Devs** member && contributor
Contributed to numerous local and national civic hacking events targeting areas such as local city organization, public health, and food equality.
- '13-'15 **Association of Computing Machinery** operations chair
Facilitated over two dozen lunch and learns, covering various topics, each year. I have also helped organize several collegiate and civic hackathons as well as have spearheaded a few extended hackathons focused on building code confidence in freshmen programmers.

publications

- '17 **MTL Robustness for Path Planning with A*** 2nd author
Algahtani, Sarra & Riley, Ian & Taylor, Samuel & Gamble, Rose & Mailler, Roger. (2017). MTL Robustness for Path Planning with A.*
- '17 **Securing Wearables through the Creation of a Personal Fog** 2nd author
Walter, Charles & Riley, Ian & Gamble, Rose. (2017). Securing Wearables through the Creation of a Personal Fog
- '16 **Toward Predicting Secure Environments for Wearable Devices** 2nd author
Walter, Charles & Riley, Ian & He, Xinchu & Robards, Ethan & Gamble, Rose. (2017). Toward Predicting Secure Environments for Wearable Devices. . 10.24251/HICSS.2017.168.
- '16 **Configuring an appropriate team environment to satisfy relevant criteria** 2nd author
Walter, Charles & Riley, Ian & Gamble, Rose. (2016). Configuring an appropriate team environment to satisfy relevant criteria. 1-9. 10.1109/FIE.2016.7757707.