Sarah Gibbons

http://sfg11.github.io/sarah

Email : sfg11@txstate.edu
Mobile : +1-214-608-3340

Education

- **Texas State University** — San Marcos, TX
  Bachelor of Science Computer Science; GPA: 3.00 — *2014 – Anticipated Spring 2018*

Experience

- **Texas State University** — San Marcos, TX
  Tutor, Undergraduate Lab Assistant — *June 2017 - Present*
  - **Tutor:** Tutored students in computer science courses, such as Foundations of Computer Science I and II, Data Structures, Object Oriented Programming and Design.
- **Texas State University** — San Marcos, TX
  Student Worker — *March 2016 - June 2017*
  - **Front Desk:** Assisted current and prospective computer science students in various departmental Computer Science inquiries both in person and over phone. Provided clerical support and input data.
- **Undergraduate Research at Texas State University** — San Marcos, TX
  Applied Mathematics, Computer Science — *Spring 2017, Summer 2016*
  - **Undergraduate Researcher in Applied Mathematics:** Graphs are ubiquitous network models, and their zero forcing numbers provide valuable network information. However, no known efficient algorithm exists to compute it. In this research, families of graphs were studied to derive a formula for finding the zero-forcing number and prove it is minimal for certain families of graphs.
  - **Undergraduate Researcher in Computer Science:** Researched exhaustive, greedy and recursive algorithms on structured graphs that are used in computing NP-hard graph properties, such as the independence number, domination number, and annihilation number of graphs. Furthermore, performed computational experiments that approximate an inequality bounding the independence number.

Academic Activities

- **President, Association of Women in Mathematics (AWM):** Leader of 20 students that promotes increased knowledge of and greater interest in the mathematical sciences. Organized resume and interview workshop. Mentored and encouraged girls as they prepare for careers in science and mathematics.
- **Presenter, Young Mathematicians Conference 2017:** Report Talk on Zero Forcing and Propagation on Generalized Petersen Graphs, Columbus, Ohio
- **ATXHack4Change 2017:** Used the ionic framework and node.js to create an online marketplace that connects small farmers directly to buyers of fresh local produce.
- **ComDes Hackathon 2017:** Used Python scripts and Capital Metro transportation datasets to produced the number of seats available on a bus at each stop.
- **Award:** "Problem Solving Challenge", Winner for the Women Doing Math Program.

Skills

- **Computer Programming:** C++, C, Java, HTML, CSS, Python, Assembly.
- **Software, Operating Systems, IDEs:** Vim, Atom, Git, Latex; Windows 10, Linux, MacOS, Ubuntu; Eclipse, Visual Studio, IntelliJ, PyCharm, XCode.