

SARAH F. GIBBONS

Sfgibbons5@gmail.com | (214)-608-3340 | sfg11.github.io

EDUCATION

Texas State University

B.S. Computer Science, Applied Mathematics Minor

San Marcos, TX

May 2019

TECHNICAL SKILLS

Programming Languages: Python, C#, C++, C, Java, React Native, JavaScript, HTML, CSS

EXPERIENCE

Software Engineer I at Dell

June 2019 – Present

- Worked on a test automation framework team for Dell Enterprise using *C#, MsTest2, Selenium* and *Specflow*
- Automated tests from web applications to APIs
- Developed and maintained test automation framework used to drive 900+ automated tests
- Practiced Test Driven Development (TDD) and Behavior Driven Development (BDD) to analyze business requirements and develop test cases based on business requirements

Data Science & Analytics Intern at TenantCloud

September – December 2018

- Preprocessed data and performed statistical analysis on text in Python. Used natural language processing (NLP) methods to transform data, identify context relationship and prioritize 60k service requests
- Used predictive analytics and NLP tools such as *Spacy, Gensim's Word2Vec* and *topic modeling* with Latent Dirichlet Allocation (LDA) to provide compact/quantitative description of text
- Developed a supervised machine learning task to train an embedded neural network with Python library *Genism*
- Created a chatbot (retrieval-based model) using document similarity, TF-IDF and cosine similarity (sckit-learn), <https://github.com/sfg11/Data-Science>

Developer/ Data Science Intern at State Street

May - August 2018

- Worked with data scientists on cognitive team using *computational linguistics, Python3* and natural language processing libraries *pandas, SpaCy*, to develop and detect emotion/tone in text documents
- Worked on the research team using *React.js, GraphQL* to implement UX design for a common service platform that hosts different financial services

Undergraduate Research at Texas State University

Applied Mathematics (Graph Theory)

March 2017

- Worked on a team mentored by Dr. Daniela Ferrero; explored whether an efficient algorithm could be developed to determine the zero-forcing number (a “fast-mixed search” variant in computer science) of specific graph families
- Derived a new algorithm for finding the zero-forcing number of Generalized Petersen Graphs [Publication in progress]

Undergraduate Lab Assistant at Texas State University

Tutor

June – December 2017

- Tutored students 15 hours a week in C++ and Java. Helped students on programming assignments in Foundations of Computer Science I and II (C++), Data Structures (C++), Object Programming and Design (Java), and Computer Architecture (C++)

Undergraduate Research at Texas State University

Computer Science

June—August 2016

- Researched exhaustive, greedy, and recursive algorithms for computing NP-Hard graph properties on structured graphs

- Produced a new lower-bound on the independence number, an NP-Hard graph invariant
- Used Python to implement the Havel-Hakimi algorithm and Maxine algorithm,
<https://github.com/sfg11/Graph-Theory-Algorithms-in-Python-2016>

LEADERSHIP EXPERIENCE

Association of Women in Mathematics (AWM), *President*
Young Mathematicians Conference 2017, *Speaker*

August 2017—Present
August 2017