## **Andrew Magill**

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Experienced software engineer and current doctoral student with a proven track record developing and deploying distributed web applications, automating data processing, and engaging directly with clients.

## **WORK EXPERIENCE**

Software Engineer III - SparkCognition, Austin, TX

Jun 2021 - Sep 2022

- Collaborated with a cross-functional team to design and implement a document retrieval system
  that indexed terabytes of reports for a major energy industry client, contributing to a significant
  reduction in search times and improved data accessibility.
- Eliminated a manual data ingestion process by reverse engineering a proprietary file format, saving days of repeated manual processing.
- Migrated applications and infrastructure from Google Cloud Services to Microsoft Azure, resulting in a reduction in hosting costs.

Research Software Engineer - Texas Advanced Computing Center, Austin, TX Sep 2015 - Jun 2021

- Designed, developed, and deployed high-performance web application interfaces to distributed computing resources, enabling thousands of researchers from multiple US universities to access the resources and accelerate their research.
- Played a key role in driving innovative research initiatives by actively participating in academic
  conferences and contributing to various research products, including papers, presentations,
  workshops, and posters, which helped advance the knowledge and understanding of the field.

Senior Software Developer - City of Austin, Austin, TX

Mar 2008 - Sep 2015

- Led the development of the City of Austin's primary web application for displaying spatial data to the public, resulting in a user base of 3,500 daily users.
- Implemented the first cached tiled map services for the City of Austin, leading to a significant improvement in the delivery speed of spatial data for web mapping applications.
- Automated batch data processing with Python, eliminating days of repeated manual processing.
- Worked closely with clients to gather project requirements and ensure timely delivery.

## **EDUCATION**

PhD Computer Science - Texas State University, San Marcos, TX MS Computer Science - Texas State University, San Marcos, TX BA Geography - The University of Texas at Austin, Austin, TX

Aug 2021 - May 2027 (Expected)

Jan 2017 - Dec 2020

Jan 1999 - Dec 2004

## **SKILLS**

Proficient using Python, Django, Flask, SQL, Git, Linux, NGINX, Docker. Skilled with Java, Spring, JavaScript, React, C, FastAPI, AWS, Azure, PostgreSQL, MongoDB, GraphQL, Jenkins, and Ansible.