Zachary Zysberg

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EDUCATION

Stony Brook University   Expected Graduation: May 2020
Applied Mathematics and Statistics, B.Sc. • Computer Science, B.Sc. • Minor in Geospatial Science   GPA: 3.12/4.00

PROFESSIONAL EXPERIENCE

National Geospatial-Intelligence Agency   June 2019—August 2019

New York American Water – <u>Department of Engineering – GIS Sector</u>   May 2018—August 2018
- GPS-located assets in the field, which include curb-stop valves, meter pits, gate valves, fire hydrants   June 2017—August 2017
  - Collected data is used for analysis of future projects, including water main and service replacements
- Implemented several Python scripts to reformat water and hydrant identifications to prepare for implementing a new GIS database
  - Used in each individual state branch of American Water, nationwide

TLT Media Lab at Stony Brook University – <u>Technician/Developer</u>   January 2017—May 2018
- Development of interactive comparison map of Long Island census data
  - Data is retrieved via SQL calls made to a local server that hosts the GIS data
  - Includes custom-embedded YouTube videos triggered by clicking on GIS-based point data
  - Interactive map is implemented on a custom webpage using PHP
- Created a dynamic bar graph animation that cycles through several sets of data using the d3.js library
- Integrated Stony Brook University's SINC-site schedule with live updating from a Google Sheet using PHP

Family Residences and Essential Enterprises Inc. – <u>IT Department</u>   May 2016—June 2016
- Reset and configured windows on computers to be used for company employees
- Organized all client contact information for a company-wide database to improve phone tree system
- Assisted in the implementation of a group-based message system blast
- Performed electronic equipment inventory to facilitate organization within the company

PROJECTS (GitHub: @Zysberg)

Stratos' Game – *written in JavaScript*   July 2018—August 2018
- A turn-based board game inspired by Chess
- Utilized design principles such as the strategy and factory principles to produce coherent and flexible code
- Customized graphics and implemented board rotation for seamless user experience

Konigsberg – *written in JavaScript*   December 2017—January 2019
- A 3D graph drawing and visualization tool
- Ability to export and import graphs via a JSON object written to a text file
  - This makes it easier to manually customize the graph to the user's liking
- Built with A-Frame, a framework typically used for Web-VR experiences

ACTIVITIES & ORGANIZATIONS

Theta Tau Professional Co-ed Engineering Fraternity - <u>Professional Development Chair</u>   August 2018—December 2018
- Coordinated and executed interview prep sessions and résumé workshops to
  better prepare members for internships and bolster their professionalism.

Stony Brook Computing Society – <u>Community Leader</u>   March 2017—April 2017
- Collaborated with students to plan events that introduce students to tools and
  technologies used in higher-level classes.

SKILLS & ACCREDITATIONS | RELEVANT COURSES

Languages: C • Python • JavaScript • Java • Git • SQL • MIPS   GIS & Remote Sensing • Computational Geometry
Libraries: Node.js • jQuery • A-Frame • CARTO.js   Geodatabase and Design • Intro to Data Science
Other: ArcGIS Pro • ArcGIS Desktop   Software Engineering • Systems Fundamentals II