

# Savannah Ostrowski

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[GitHub](#) | [Personal Website](#)

## PROFESSIONAL EXPERIENCE

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### Software Engineer // DroneSeed

Seattle, WA (Jan. 2017 - Jul. 2017)

- Researched, designed, and implemented algorithms for automating multi-vehicle drone flight path selection and obstacle avoidance over hundreds of acres of land using Python (Shapely) as the company's only engineer
- Built route data visualization tools to validate selected drone flight paths and spray patterns with Python
- Coordinated with operations and sales leads to discuss operational logistics for executing customer jobs

### Software Developer Intern // Sequence

San Francisco, CA (Sept. 2015 - Dec. 2015)

- Refactored a nutrition calculator web application using React to improve flexibility for adding new features
- Worked alongside designers to prototype new features and fix bugs for high-profile client websites
- Improved a client's content management system by creating HTML module templates to allow rapid page creation

### Software Developer Intern // TheRedPin Inc.

Toronto, ON (Jan. 2015 - Apr. 2015)

- Built a web crawler with node.js to find invalid URLs in a site map of 3.7 million URLs
- Developed features, fixed bugs, and automated quality assurance work flows using JavaScript, HTML, and SASS

## TEACHING EXPERIENCE

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### Teaching Assistant - Advanced GIS // University of Waterloo

Waterloo, ON (May 2015 - Aug. 2015)

- Taught students about algorithms (e.g. Getis-ord  $G_i^*$ , k-nearest neighbors) to help them produce data visualizations as well as Python scripting for automating tedious spatial data analysis work flows
- Helped students build and troubleshoot a scripting tool to scrape Twitter using Python to gather, synthesize, and generate compelling data visualizations based on tweet data and geographic location

## RELEVANT PROJECTS

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### Remote Sensing Capstone Project // University of Waterloo

Waterloo, ON (Jan. 2016– Apr. 2016)

- Led a team in designing a study that evaluated the suitability of the unsupervised k-means algorithm to detect total lake ice breakup using time series analysis methods

### GIS Capstone Project // University of Waterloo

Waterloo, ON (May 2015 – Aug. 2015)

- Designed a study that used temporal analysis to quantify the effects of post-secondary students on sustainable development in the Waterloo region from 1996 – 2011 as the research team lead
- Built an [interactive web application](#) to visualize findings using Leaflet, geoJSON and Mapbox (code on [GitHub](#))

## SKILLS AND INTERESTS

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**Programming Skills:** Python (scikit-learn, numpy, matplotlib, pandas), Java, SQL, JavaScript, Linux, SPSS

**Technical Skills:** Statistics, Clustering, Dimensionality Reduction, Data Classification

**Interests:** Spatial Data, Data Visualization, Machine Learning, Data Classification; Nutrition, CrossFit, Cooking, Hiking

## EDUCATION

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### Bachelor of Environmental Studies - Geomatics // University of Waterloo

Waterloo, ON (Jun. 2016)