# Brooks Mershon

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## EDUCATION

### DUKE UNIVERSITY
BS in Computer Science
May 2016 | Durham, NC
Cum. GPA: 3.74 / 4.0
Duke Cycling Team Member

### NEW YORK UNIVERSITY
Writers in New York 2014

### PENNSBURY HIGH SCHOOL
Valedictorian | Fairless Hills, PA

## LINKS

Github:// **bmershon**
bl.ocks:// **bmershon**
LinkedIn:// **bmershon**
Twitter:// **@bgmershon**
Flickr:// **b_mershon**

## COURSEWORK

Selected Favorites:
Euclidean and Non-Euclidean Geometry
Topology with Applications
GIS and Geospatial Analysis
Linear Optimization / Game Theory
Database Systems
Intellectual Property Law
Public Speaking
Digital 3D Geometry
Statistical Inference

## SKILLS

### PROGRAMMING

Bread and Butter:
TypeScript • JavaScript
HTML • CSS • LaTeX
Git • Make
D3 (Data Driven Documents)

Familiar:
C++ • Python • Java • R • PostgreSQL
Emscripten • WebAssembly

### AVIATION

Commercial Pilot (Glider)
Private Pilot (Airplane Single Engine Land)

Checked out in:
Schweizer SGS 2-33/2-32
Grob 103C Twin III
Cessna 152/172
Citabria • Super Decathlon
RV-6

## EXPERIENCE

### MILE HIGH GLIDING | Pilot
July 2018 to Present
- Flying tourists over the Boulder Flatirons in a Schweizer SGS 2-32 glider.

### TRIMBLE SKETCHUP | Software Developer
July 2016 to Present | Boulder, CO
- Working on SketchUp running in the browser.
- Won "Best Presentation" and "Best Overall Hack" at internal 2018 hackathon.

### THE WASHINGTON POST | Graphics Intern
June 2015 to August 2015 | Washington, D.C.
- Designed graphics for print and online publication using Adobe Illustrator.
- Developed an automated pipeline using Makefiles for rendering a map from shapefiles and tabular data.
- Developed an interactive 3D globe for visualizing nuclear testing.

### DUKE UNIVERSITY PRESS | Books Editorial Intern
Jan 2015 to May 2015 | Durham, NC

### VERSAL | Software Engineering Intern
May 2013 to Aug 2013 | San Francisco, CA
- Developed simulations related to optics, epidemiology, image processing, and geometry as the company launched.

## PROJECTS

### VAN'S AIRCRAFT RV-6 (N134JB) | Experimental Aircraft
May 2018 to Present | Longmont Municipal Airport
Own, maintain, and pilot a RV-6 named "Kismet". The plane is teaching me which end of a screwdriver to pound on.

### INTERACTIVE EXAMPLES | Learning by teaching
Ongoing
bl.ocks.org and Observable Notebooks serve as a fun public place for me to share words and code, usually surrounding a subject that I am self-teaching.

### EQUIDECOMPOSING POLYGONS | Geometric Algorithm
March 2016 | Duke University
Decompose one shape into another shape of equal area. Learned to appreciate degeneracies in geometric algorithms.

### 3D SPECULAR REFLECTIONS | Interactive Simulation
February 2016 | Duke University
Implemented a visual and auditory echo simulator for 3D environments.

### WIKIBLOCKS | Wikipedia and Visualization
September to December 2015 | Duke University
Developed a fully-functioning prototype Chrome extension and backend system that finds relevant visualizations for a STEM-related Wikipedia article. Set up and benchmarked AWS server.

### TEACHING TOPOLOGY WITH CODE | Math + Code
Sept 2014 to Dec 2014 | Duke University
Built interactive pedagogical tools using D3 for a course in computational topology.