

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 has taught 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.