

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

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

TypeScript • JavaScript • D3

Git • Make

HTML • CSS • \LaTeX

Familiar:

C++ • Python • Java • R • PostgreSQL

Emscripten

AVIATION

4034486CFig

Commercial Pilot (ASEL, GLIDER)

Flight Instructor (GLIDER)

Hours:

TOTAL: 875 • PIC: 780

ASEL: 518 • GLIDER: 348

TAILWHEEL: 358 • INSTRUCTION: 86

12-MONTHS: 503 • 90-DAYS: 171

VAN'S RV-6: 290

SCHWEIZER 2-32: 204

SKYBOLT: 6

EXPERIENCE

MILE HIGH GLIDING | MANAGER/PILOT

January 2019 - Present

- Experienced commercial glider pilot and tow pilot.
- Rebranding and implementing new marketing for Mile High Gliding.
- Managed restoration of existing gliders and acquisition of new aircraft.
- Primary glider flight instructor.
- Average 90-day currency: 200 tailwheel landings, 250 glider landings.

TRIMBLE SKETCHUP | SOFTWARE DEVELOPER

July 2016 - January 2019 | Boulder, CO

- Worked on SketchUp running in the browser.
- Won "Best Presentation" and "Best Overall Hack" at internal 2018 hackathon.

THE WASHINGTON POST | GRAPHICS INTERN

June 2015 - 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 - May 2015 | Durham, NC

VERSAL | SOFTWARE ENGINEERING INTERN

May 2013 - Aug 2013 | San Francisco, CA

- Developed simulations related to optics, epidemiology, image processing, and geometry as the company launched.

PROJECTS

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.

3D SPECULAR REFLECTIONS | INTERACTIVE SIMULATION

February 2016 | Duke University

Implemented a visual and auditory echo simulator for 3D environments.

WIKIBLOCKS | WIKIPEDIA AND VISUALIZATION

Sept 2015 - Dec 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 - Dec 2014 | Duke University

Built interactive pedagogical tools using D3 for a course in computational topology.