# BEN SCHWENNESEN

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## **EDUCATION**

### Duke University, Bachelor of Science

August 2015 – May 2019

Majors: Computer Science and Mathematics

Overall GPA: 3.9/4.0 | Computer Science GPA: 4.0/4.0 | Mathematics GPA: 3.88/4.0

Relevant Coursework: Software Design and Development (*in progress*), Artificial Intelligence, Data Structures and Algorithms, Discrete Math, Computer Architecture, Multivariable Calculus, Linear

Algebra, Complex Analysis, Honors Probability, Differential Geometry

## **EXPERIENCE**

### The Aerospace Corporation, Chantilly, VA

May 2017 – August 2017

Software Engineering Intern - Software Systems and Acquisitions

- Designed and implemented a system that automatically reconstructs the architecture of arbitrarily complex software systems hosted in the cloud using Elasticsearch, Fluentd, MySQL, and Python.
  - Created a visualization layer for modelling the reconstructed architectures using various JavaScript libraries including jQuery, D3, and JointJS.
  - This tool fully automated the tedious task of verifying that contractors have met delivery requirements agreed on with the government, saving reviewers about 10 hours per week.
- Built a static analysis tool for use on ground and satellite software reviewed or produced by the Corporation. This tool will vastly improve the speed of code reviews by automating tasks formerly performed by experienced engineers. The tool was written in Python.

### Duke University, Durham, NC

August 2017 - Present

Undergraduate Teaching Assistant - Department of Computer Science

- Serving as a teaching assistant for Computer Science/Electrical and Computer Engineering 250: Computer Architecture.
- Responsible for leading labs, holding office hours, and grading coursework.
- Topics include: UNIX, C and assembly programming, logic design, pipelining, I/O, data representations and storage, virtual memory

#### Fugua School of Business, Durham, NC

August 2015 – May 2017

Research Assistant – Finance Department

- Scraped large datasets containing over 5 million from various sources on the web, primarily using Python; performed regression and statistical analyses on the datasets using Stata
- Topics of research included but were not limited to: financial technology, hedge fund activism, corporate culture and governance, and the efficacy of professional financial analysts as compared to amateur bloggers.

#### Duke University, Durham, NC

October 2016 – March 2017

Research Assistant – Department of Mathematics

- Researched methods to automate the repair of models of human nasal passages in the form of triangular meshes, including the removal of toroidal holes and other noise. Programming was in MATLAB.

# SKILLS AND INTERESTS

Programming Languages: Java, Python, C, JavaScript, MATLAB, Bash

Technologies: Elasticsearch, Docker, Kubernetes, AWS, Relational Databases, UNIX

Interests: Full-Stack Engineering, Machine Learning, Financial Technology, Linear Programming