

## Education

University of North Carolina at Chapel Hill  
BS in **Quantitative Biology**, minor in **Mathematics**  
Honors College

Class of 2018  
GPA: 3.4

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## Relevant Experience

### UNC Biology — *Scientific Programmer*

May 2016 - Present

#### *Lab of Dr. Kerry Bloom*

- Currently working with convolutional neural networks to automate the tracking of proteins of interest, allowing analyses to be completely automated
- Automated the segmentation of proteins in fluorescent images to increase the efficiency of the lab's image analysis pipeline

### University of Cambridge — *Visiting Researcher*

May 2017 - August 2017

#### *Lab of Dr. Stephen Eglon*

- Built an online, interactive statistical explorer in **R** of neuroscience data to improve ease of collaboration among neuroscience researchers worldwide
  - Created a series of Jupyter notebooks in **Julia** allowing the user to understand and visually interact with important differential equations modelling of neuroscience phenomena
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## Personal Projects

### UNC Crime Database — *Creator*

June 2017

- Used **Python** to classify UNC's database of 30,000 crimes into zones and categories that hold meaning for UNC students (i.e. academic buildings, fraternity court, etc)
- Used **Node.js** with Google Maps API to publish this data visually

December 2015 - January 2017

### Swap Drop Enroll — *Creator*

- Created website and system that automatically enrolls UNC students into high-demand classes the instant a vacancy opens up
  - Built frontend with **Flask**, backend with **MySQL** and **PhantomJS**
  - Consulted for UNC Vice Chancellor of Information Technology by providing data on class demand
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## Honors and Awards

### Boeing — *Boeing Innovation Fellowship*

May 2017

- Won a \$2,500 award for ideating and presenting the concept of a smart waste bin that classifies food waste based on spectroscopy
  - Pitched the concept to a panel of Boeing executives to receive feedback on economic and technical feasibility
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## Skills

**Technologies:** Julia, MATLAB, R, C++, Git  
**Languages:** Native English, fluent Spanish

