

# Benjamin E. Noland

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<http://bnoland.github.io/>

## Education

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**Rutgers University**, New Brunswick, NJ, September 2012-May 2016

BA in mathematics, minor in physics

School of Arts and Sciences Honors Program

GPA: 3.525

### Selection of coursework:

- **Mathematics:** Calculus, linear algebra, ordinary differential equations, real analysis, complex variables, differential geometry, linear programming, abstract algebra, topology (*taken at Rutgers University*)
- **Physics:** Classical mechanics, electromagnetism, astrophysics (*taken at Rutgers University*)
- **Computer science:** Systems programming, data structures and algorithms (*taken at Princeton University while in high school*); Advanced Placement computer science (*taken in high school*)
- **Statistics:** Advanced Placement statistics (*taken in high school*)

## Skills

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### Computer skills:

- **Proficient with:** C, Python, Java, R, L<sup>A</sup>T<sub>E</sub>X, Windows, Unix, Git, Microsoft Office (and similar tools)
- **Experience with:** Stata, JavaScript (including JQuery), HTML, CSS, PHP, MySQL, x86 assembly language
- **GitHub account:** <https://github.com/bnoland>

### Additional skills:

- **Probability theory and statistical inference** (hypothesis testing, point estimation, regression, etc.)
- **Data processing skills** (using software packages such as R and Stata)
- Willingness and ability to learn things independently
- Intent to expand my knowledge and skills in mathematics, statistics, and programming

## Experience

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### *Programming intern*

**Voorhees Transportation Center, Rutgers University**, New Brunswick, NJ, June 2016-November 2016

- Designed and implemented R scripts to detect possible groups of riders in Citi Bike trip data. The latest versions of the scripts may be found at:

<https://github.com/bnoland/citibike>

- Implemented a website for visualizing the results of this study. The latest version may be found at:

<https://bnoland.github.io/citibike-map/>

### *Programming intern*

**Vertices, LLC**, New Brunswick, NJ, May 2015-August 2015

- Worked on Mappler, an online geographic information system (GIS) tool. Designed and implemented a feature that allows users to upload images, extracts GPS data from the images, and adds them to the map database.
- Partially implemented a daemon for extracting images and associated GPS data from email accounts and adding them to a map database.

### *Programming intern*

**Voorhees Transportation Center, Rutgers University**, New Brunswick, NJ, July 2014-August 2014

- Designed and implemented a website that maps crashes involving vehicles and pedestrians (including bicyclists) using data provided by the New Jersey Department of Transportation.
- The site allows the user to submit search queries to filter the data. The site can be found at:

<http://ppppolicy.rutgers.edu/vtcddata/pedestrian/pedmap.html>

## Extracurricular Activities

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### *Head of Computer Club*

**Princeton High School**, Princeton, NJ, September 2009-February 2012

- Worked with club members towards developing a robot that could navigate a maze.
- Organized fundraising for the club.
- Taught other students the basics of programming.

## Honors

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- **2014 Rutgers Academic Excellence Award**, April 2014
- **Princeton High School Computer Science Award**, June 2012