Benjamin E. Noland

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Education

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

Relevant 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)*
- **Statistics:** Advanced Placement statistics *(taken in high school)*

Computer Skills

- **Proficient with:** C, Java, Python, R, LaTeX, 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

- Knowledge of probability theory and some knowledge of statistical theory.
- 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

Programming intern
Voorhees Transportation Center, Rutgers University, New Brunswick, NJ, June 2016-September 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`

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://pppolicy.rutgers.edu/vtcdata/pedestrian/pedmap.html`

Additional Experience

Tutoring (informal)
Rutgers University, New Brunswick, NJ, September 2012-May 2016

- Provided informal tutoring in programming and mathematics to students at Rutgers University.

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.

Video game development program
Rensselaer Polytechnic Institute, Troy, NY, July 2011

- Learned the basics of video game development.
- Developed a small game in a team environment using Python and Pygame.

Taught robotics to elementary school students
Riverside Elementary School, Princeton, NJ, January 2011-March 2011

- Used Lego to teach the elements of robotics to elementary school students.

Honors

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