# **David Buch**

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## **Education**

### West Virginia University

August 2014 - May 2018

GPA: 3.85

B.S., Mathematics and Physics (Area of Emphasis - Biophysics)

Statistics Minor

#### **Test Scores**

Graduate Record Exam: 170 Verbal, 170 Quantitative (Both Perfect Scores), 4.5 Writing (82nd Percentile)

MCAT: 524/528 (Upper 99th Percentile)

SAT: 800 Verbal, 800 Math, 800 Writing (All Perfect)

## Woodrow Wilson High School

August 2010 - May 2014

GPA: 4.0

Class Rank: 2/400

# **Experience**

### Research

- Computational Physics, WVU. Dr. Zachariah Etienne. Summer 2016 May 2018.
  - Project contribution centered on optimizing and validating changes to a large (100k Line) Git Repository of C++ Code. <u>Selected Publication</u>: "Improving performance of SEOBNRv3 by ~300×," Classical and Quantum Gravity. 35: 15 (2018).
- Computational Biology, NSF-REU, Yale University. Dr. Corey O'Hern and Dr. Lynne Regan.
  - Project contribution centered on writing Python and MatLab code to compare high-dimensional software output. <u>Selected Publication</u>: "Collective repacking reveals that the structures of protein cores are uniquely specified by steric repulsive interactions," Protein Eng. Des. Sel. 30 (2017) 387.

## **Employment**

- (Self-Employed) Pasadena Test Preparation, Founder. February 2018-Present.
- Next Step Test Preparation, GRE Tutor, Writer. Aug 2017-February 2018.
- Daily Athenaeum, Advertising Copy Writer, Spring 2016.
- WVU Athletics Tutor. Fall 2015.
- School of Harmony Violin/Cello Instructor. Fall 2013-Spring 2014.

### Leadership/Service

■ West Virginia Sierra Club Executive Committee, Vice Chair. June 2017-Present.

#### Awards

- WVU Outstanding Senior
- 2014 U.S. Presidential Scholar
- 2014 National Merit Scholarship Winner