Vera Degtiareva

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Education

- **Boston University**   **Boston, MA**
  Candidate for Bachelor's Degree in Physics   *2018 – Present (Expected Grad. May 2022)*
  with concentration in Computer Engineering

  GPA: 3.82/4.00: Dean's List

  Relevant Courses: Data Science, Computer Architecture, Applied Algorithms for Engineers, Mathematical Methods for Theoretical Physics, Lagrangian Mechanics, Statistical Thermodynamics, Quantum Physics, Probability, Differential Equations, Honors Linear Algebra, Electromagnetic Fields and Waves

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Computer Knowledge

- **Proficient:** Python (inc. Jupyter, numpy, scipy, pandas), Java, C++, C, MIPS, Verilog, LaTeX, Excel
- **Familiar:** Linux, SQL, Igor, Gromacs

Experience

- **Physics Department at Boston University**   **Boston, MA**
  Undergraduate Researcher in Single Molecule Conductivity (Kamenetska group)   *Aug 2021 – present*
  - Run experiments on Scanning Tunneling Microscope Break Junction instrument to investigate conductivity of pyrazine derivatives

- **Physics Department at Boston University**   **Boston, MA**
  Undergraduate Researcher in Physics Education (Jariwala group)   *Nov 2020 – Aug 2021*
  - Analyzed data from audio recordings of a classroom
  - Developed methodology for evaluating Learning Assistants' pedagogy knowledge

- **Physics Department at Boston University**   **Boston, MA**
  Learning Assistant for PY211, PY212 (Calculus Based General Physics I and II)   *Fall 2020, Spring 2021*
  Learning Assistant for PY105 (Algebra Based General Physics I)   *May – June 2021*
  - Guided students through discussion sessions, answered questions in lecture, discussion, and on an online discussion board
  - Developed materials for exams, discussions and labs
  - Led a hands-on lab session
  - Mentored first-semester Learning Assistants

- **Chemistry Department at Boston University**   **Boston, MA**
  Undergraduate Researcher in Computational Chemistry (Cui group)   *Jun – Aug 2020*
  - Made a model for an interface of air and water
  - Analyzed the orientation of various molecules at the interface of two phases

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Awards

Undergraduate Research Opportunity Project 2020, Undergraduate Research Opportunity Project 2021

Conferences and Publications

- **Publication forthcoming**   **Vancouver, March 27 2022**

  Degtiareva V., Allen E., Duffy A., Jariwala M., Pedagogy in practice: exploring the use of pedagogy course knowledge by learning assistants. 2022 NARST Annual International Conference

- **AAPT and PERC**   **Online, July 31 – Aug 5 2021**
  - Presented my research on Learning Assistants
  - Peer-reviewed papers presented at the conference

Languages

Russian - native, English - fluent, Hebrew - conversational, French - beginner, Dutch - beginner