

EDUCATION

- **Lower Moreland High School** Huntingdon Valley, PA
Rigorous STEM Oriented AP Courseload *Sept. 2016 – June 2020*
- **Princeton University; Center for Computational Intractability** Princeton, NJ
Program in Algorithmic & Combinatorial Thinking under Prof. Rajiv Gandhi *Summer 2018*

EXPERIENCE

- **Extracurricular** Lower Moreland HS & Others
 - **Founder and President of the LMHS Computer Science [Coding] Club:** Organized and managed a club dedicated to coding, solving Computer Science problems, and hackathon-style development.
 - **Recurring Volunteer Leader & Teacher of the Pine Road Elementary Coding & Robotics Clubs:** Assisted with the leadership of a large group of elementary school students working on introductory robotics, in addition to teaching introductory Python & CS concepts to a select group.
 - **SPDL Public Forum Debate Finalist, Judge, & Team Captain:** Competed and Judged in the Southern Pennsylvania Debate League, specifically in Public Forum, which covers a multitude of both foreign and domestic socio-economic topics. Served as captain of the Debate Team during my final year.
 - **LMHS Chess Team:** Competed in the Lower Bucks County Scholastic Chess League on the LM Team.
 - **Mathematics Team Captain:** Led a team from LM in an Inter-Scholastic online mathematics league, in addition to being a leader of the LM Math Club, which acts as a meeting place for students passionate about mathematics.
 - **Frequent Hackathon Participant & Winner:** Frequent team leadership positions in regional & national hackathons, e.g HackGFS, CodeDay Philly, PennApps, PennApps Retro.

- **Projects**

- *Complete portfolio available on GitHub*
 - **Reconstruction of Phylogenetic Trees via Levenshtein Distances of RNA:** Study conducted to the evaluate the effectiveness of using the edit distance (Levenshtein Distance) between RNA sequences of species in reconstructing their phylogenetic tree.
 - * **Notable Awards:** PJAS Director's award for "Most Outstanding Senior High Project in the area of Computer Science"; Schrödinger Award for Excellence in Student Science Research; Biophysical Society Award; US Dept. of Agriculture Future Scientist Award; Regional, State, and Interstate First & Second Places across the PJAS, MontCo, and DelVal Science Fairs
 - **Diagnosing Malignant Breast Tumors via Machine Learning:** Study conducted to test the application of machine learning algorithms in the diagnosis of malignant breast tumors, based on numerical data extracted from fine needle aspiration.
 - * **Technologies:** Python, SKLearn, Pandas, Scipy **Notable Awards:** Regional & State First Places at PJAS; Villanova Award for Applied Statistical Analysis; First Place in C500 (Computer Science) at MontCo Science Fair

- **Academic** Lower Moreland HS & Virtual High School
Complete transcript available upon request *Sept. 2016 – June 2020*

- **AP Computer Science A [A+, 5]:** The course emphasizes object-oriented programming methodology in Java, especially problem solving and algorithm development, plus an overview of data structures and abstraction.
- **AP Calculus AB [A, 5]:** The course explores the methods and applications of differential and integral calculus.
- **Computational Science & Engineering [A+]:** The focus of the course is on scientific programming and using the Java language as a tool in building mathematical models.
- **Independent Study [Pass]:** Self guided study on the analysis of popular computational algorithms.
- **Research, Design, & Evaluation [A]:** Semester class on statistical analysis of data in application to research.

SKILLS

- **Java:** Extensive experience with Java for both application development and scientific computation.
- **Python:** Developed numerous projects, research studies, simulations, and scripts in Python 3.
- **Web Development:** Introductory knowledge of HTML5, CSS3, JS, and multiple web-oriented frameworks.
- **Deep Learning:** Introductory knowledge & application of machine learning technologies, e.g Supervised & Unsupervised Learning, Deep Learning, etc.
- **Languages:** Fluent in English & Russian; Proficient in Hebrew & Spanish.