

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 *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:** Competed & Judged in the Southern Pennsylvania Debate League, specifically in Public Forum, which covers a multitude of both foreign and domestic socio-economic topics.
 - **LMHS Chess Team:** Competed in the Lower Bucks County Scholastic Chess League on the LM Team.
 - **Math Team Leader:** 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.
 - **Academic Decathlon Team:** Frequent Participant on the Lower Moreland Academic Decathlon Team.
 - **Frequent Hackathon Participant & Winner:** Frequent team leadership positions in regional & national hackathons, e.g HackGFS, CodeDay Philly, PennApps, PennApps Retro.
 - **Campus Ambassador for PennApps:** Participated in a campaign to encourage people to join CS by helping spread information about PennApps, one of the largest hackathons in the US.
- **Projects**
 - **Diagnosing Malignant Breast Tumors via Machine Learning:** Study conducted to test the effectiveness 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
 - **Optimization of Commercial Radar through Multithreading:** An application of multithreading to a simulated radar system as a proof-of-concept that software optimization techniques could be applied to hybrid systems.
 - * **Technologies:** Python, Threading, Matplotlib **Notable Awards:** Regional & State First Places at PJAS.
 - **Conceptualizing and Implementing ARP based Network Security:** Development of desktop software aimed at improving network security by validating connected devices with a user-defined list of allowed mac addresses.
 - * **Technologies:** Visual C#, .Net, Visual Studio **Notable Awards:** Regional & State First Places at PJAS
- **Academic** Lower Moreland HS & Virtual High School
 - *Complete transcript available upon request* *Sept. 2016 – June 2020*
 - **AP Computer Science A [A+]:** The course emphasizes object-oriented programming methodology in Java, especially problem solving and algorithm development, plus an overview of data structures and abstraction.
 - **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.