

Aleksander Garbuz

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EDUCATION

Biotechnology High School, International Baccalaureate Candidate (Class of 2024)

Freehold, NJ

Current Junior as of the 2022-2023 school year

June 2024

- Secretary on the Junior Class Council
- **GPA:** 4.0 UW
- **SAT:** 1530

WORK EXPERIENCE

CEC Research

Cranford, NJ

Consumer Study Coordinator

Summers 2021 – 2022

- Managed direct communications with consumer study participants to answer questions and ensure a smooth and efficient process for data collection
- Prepared samples for consumer research according to industry-established sensory protocols for consumer packaged goods
- Performed receptionist duties, such as ingoing and outgoing communication with respondents, scheduling and accommodating study changes requests to ensure that every consumer study had a sufficient number of participants needed

Leadership Experience

Science Olympiad & Scientific Competition Club

President

2022 – Present

- Increased underclassmen participation in club activities and increased number of students participating overall
- Managed Science Olympiad Team and designated positions for competitive events
- Competitor in the Codebusters, Fermi Questions, and Experimental Design challenges at Science Olympiad
- Research into Albedo for the scientific competition club

Youth Social Venture Capital

Head of Logistics

November 2022 - Present

- Helped to raise \$20,000 for a grant initiative for sustainable and green-focused businesses
- Partnered with several non-profits and helped acquire experienced professionals
- Worked with the Assistant Secretary-General and Head of the New York Office of the UN Environment Programme to help find start-ups to invest in
- Established lines of communication between potential donors to acquire seed money for the initiative

Lab Notes Blog

CTO and Writer

February 2023 - Present

- Managed a group of high school students for the website management team
- Started the Engineering section of the blog, where new engineering-related news is reported biweekly
- Handled logistical operations for the blog and helped to expand it to further horizons

Academic Team

Vice President

2021 – Present

- Created questions for in-house competitions and oversaw day-to-day club activities
- Competitor at various competitions in both quiz-bowl style and modified jeopardy

Extracurricular Activities

BeaverWorks Summer Institute

MicroElectronics Student

July 2023 – Aug 2023

- Student in a class of 37 studying Microelectronics and its capabilities
- Learned electrical engineering concepts in theory and practical settings
- Completed a final project aiming to create an autonomous and manually controlled rover meant for space exploration

Research

2022 – Present

- Independent research concerning the Mars surface and the construction of local spherical harmonic models through the use of MAVEN satellite data

Governor's STEM Scholars

Scholar

2021– 2022

- Completed a research project on the Albedo of the Earth and its correlation to weather events
- Utilized programming and presentational skills to contribute toward a final paper

AWARDS

- 3rd place winner - Earth & Space Science category for a project that aimed to make a correlation between higher surface temperatures and the albedo of different building materials at the Jersey Shore Science Fair 2023
- 3rd place winner - E&S at Delaware Valley Science Fair 2023
- Honorable Mention - NJ Science State Day Competition 2023
- Best communicator award - Governor's STEM Scholars Program 2022
- 1st place - Alpha Hacks Hackathon for a project in web development and data analysis 2021

Projects

Autonomous RC Plane

June 2023 – Present

- Autonomous custom foam plane outfitted with a recording device and sensors in order to take in information about its surroundings
- Recordings are used in a machine learning algorithm to detect features within the environment (dead crops/grass, bush fires, other hazards) - meant for agricultural applications

VOLUNTEER WORK

Learn To Be Tutor

September 2022 – Present

- A tutor for the program "Learn To Be" which aims to provide educational equity to younger students around the country

Big Brothers Big Sisters

2021 – 2022

- Acted as a "Big Brother" to a middle school student at Long Branch Middle School
- Contributed to and helped with the events associated with the program in order to help underprivileged students

SKILLS

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|---|-----------------------------|
| • Russian & Spanish (Conversational) | • Matlab |
| • Python | • Numpy |
| • Arduino IDE | • Microsoft 365 apps |
| • Circuit Design | • Web Development |