JACOB ROOT

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EDUCATION

University of Michigan, College of Engineering **Ann Arbor, MI**
B.S.E, Electrical Engineering *Expected Graduation: April 2025*

- Overall GPA: 3.97/4.00
- Dean's Honor List: Fall 2022, Spring 2023, Fall 2023
- Current Courses: Control Systems Analysis & Design, Digital Integrated Circuits, Electrical Engineering Systems Design I, Electromagnetics I, Computer Science Pragmatics
- Relevant Past Courses: Introduction to Signals and Systems, Probabilistic Methods in Engineering, Programming and Data Structures, Introduction to Electronic Circuits, Principles of Optics

University of Michigan, International Programs in Engineering **Prague, Czech Republic**
Study Abroad *Summer 2023*

- Completed coursework in engineering and local history
- Participated in cultural and industrial excursions to understand intricacies of Czech culture and business

EXPERIENCE

Michigan Mars Rover Team **Ann Arbor, MI**
Embedded Hardware Subteam *September 2023 - Present*
Communications Subteam *October 2022 - April 2023*

- Responsible for schematic and layout designs of Power Distribution Board using Altium software. Collaborate with sub-team to solder, test and integrate PDB with Rover's systems
- Implementation of rover communications platform, including onboard and base station radio systems, ensured efficacy at adequate ranges for both 900Mhz and 2.4Ghz frequencies

University of Michigan Science Learning Center **Ann Arbor, MI**
Study Group Facilitator *September 2023 - Present*

- Plan and facilitate weekly concept review sessions for group of 12 students enrolled in 200-level Electricity and Magnetism Physics course at the University
- Create a collaborative environment by fostering productive communication; enhance students' learning through knowledge of course material and employment of group facilitation techniques

University of Michigan Hillel **Ann Arbor, MI**
Freshconnect Fellow *December 2022 - September 2023*

- Served on committee to plan and execute events, successfully increasing student engagement at Hillel by 30% from the Fall semester year-over-year
- Met with several individual students multiple times per month via coffee chats to gain feedback on programs and encourage participation in events

Echo Lake Country Club **Westfield, NJ**
Caddy *June 2022 - Present*

- Provide support to each golfer by carrying his or her bag, providing advice, and ensuring companionship
- Management of pace and use of customer-service skills making for an enjoyable round for the player

ADDITIONAL

- **Skills:** MS Office, C++, Java, Matlab, Breadboarding, Soldering
- Eta Kappa Nu - currently electing
- Theta Xi Fraternity - Sigma Chapter, Scholarship Chair
- University of Michigan Intramural Soccer
- New Jersey State Seal of Biliteracy in Spanish