Zach Khan

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EDUCATION

University of Michigan, Ann Arbor, MI — Expected May 2024

- **Electrical Engineering**, Master of Science

University of Virginia, Charlottesville, VA — May 2022

- Electrical Engineering, Bachelor of Science, Major GPA: 3.418
- Physics, Bachelor of Arts | Computer Science, Minor

Relevant Coursework: Computer Architecture, Electrical/Computer Engineering Fundamentals I-III, Embedded Robotics I-II, Operating Systems, Program/Data Representation, Solid State Devices, VLSI, Electricity/Magnetism I-II, Capstone

WORK EXPERIENCE

Clearance: Department of Defense, Top Secret — Apr. 2020 – Present

U.S. Naval Research Laboratory, Washington, DC

Student Electronics Engineer — Jan. 2022 – Present

- Verified high speed signal processing abilities of MCU for three STP missions
- Conducted simulations and PCB revisions for two NASA missions
- Built and tested ground support equipment for reconnaissance mission

Electronics Research Intern — May. 2021 – Aug. 2021

- Researched lower power candidates in technology survey for future analog data acquisition
- Tested readout electronics board and improved embedded platform for Silicon Photomultiplier array
- Assisted flight electronics validation for ISS technology demonstration module

Northrop Grumman Mission Systems, Baltimore, MD — Jun. 2020 – Aug. 2020

Hardware Engineering Intern

- Developed raw data analyzer using MATLAB for ASIC testing results
- Decoded binary serial output using proprietary mixed length message format with bitstream error checking

EXTRACURRICULAR ACTIVITIES

Solar Car Team at UVA, Charlottesville, VA

Engineering Director — Apr. 2020 – May 2022

- Led team of 60 engineers to design and build full scale solar car in two-year cycle
- Pushed case for university administration to review legislation of student liabilities

Lead Solar Array Engineer — Aug. 2019 – Apr. 2020

- Incorporated maximum power tracking system for energy collection
- Architected sensor network using open-source schematics to monitor array performance

Pulsar Observation Group, Charlottesville, VA

Chief Technology Officer — Sep. 2020 – May 2022

- Beta-tested radio wave dipole antenna for NASA GSFC to be used for educational outreach
- Managed access to UNM's Long Wavelength Array telescope, observation data, and software

SKILLS and ACHIEVEMENTS

Altium • C/Embedded C • Cadence Virtuoso • DMM/Oscilloscope • KiCad • MATLAB • Ubuntu/Linux • VHDL

Joseph A. Sciulli Electrical Engineering Scholarship • Dr. Manu V and Shashi Patel Physics Scholarship