

# Dylan J. Kangas

Electrical & Computer Engineer

## Contact

(231) 492-5843

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[dylankangas.github.io](https://dylankangas.github.io)

## Skills

Additive Manufacturing, AC/DC Circuit Analysis, Git, High Speed I/O, Linux, Mechanical Design, Microsoft Office, Multiplexing, PCB/Schematic Design, SMD Soldering

### Embedded Controllers:

ARM, AVR, Allen Bradley PLCs, Altera FPGAs

### Programming:

ARM Assembly, Arduino, C/C++, JS, Julia, MATLAB, Python, Verilog, VHDL

### Design Software:

ANSYS, Eagle, Fusion 360, Inventor, KiCAD, SolidWorks

## Training & Certifications

Responsible Conduct of Research  
Lean Manufacturing  
5S Implementation  
OSHA Certification

## Leadership

Research Team Lead  
Engineering Lab Instruction  
Employee Onboarding  
Robotics Team Captain

## Accomplishments

SPIE Conference Presenter  
Full MS Scholarship Recipient  
Two-time Design Contest Winner  
Dean's List  
National Robotics Challenge

## Community Involvement

Blood Donation  
National Cherry Festival  
Community Meals  
Make a Difference Day

## EDUCATION

### MICHIGAN TECHNOLOGICAL UNIVERSITY

MS ELECTRICAL & COMPUTER ENGINEERING

APR 2023 - APR 2024

### MICHIGAN TECHNOLOGICAL UNIVERSITY

BS ELECTRICAL ENGINEERING  
MINOR IN MATHEMATICS

AUG 2019 - APR 2023

### MANUFACTURING TECHNOLOGY ACADEMY

ENGINEERING TECHNICAL SCHOOL

SEPT 2016 - APR 2019

Exclusive engineering-oriented curriculum with an emphasis on communication, project planning, and robot construction.

## WORK EXPERIENCE

### GRADUATE RESEARCHER

MICHIGAN TECH – HOUGHTON, MI

APR 2023 - APR 2024

Led development of robust autonomous surface vessels for the US Navy and terrestrial robots for the US Army using ROS. Implemented 3D LIDAR mapping algorithms and developed metrics for quantifying perturbations on sensor data. Author of research publications through Michigan Tech and SPIE.

### LABORATORY INSTRUCTOR

MICHIGAN TECH – HOUGHTON, MI

SEPT 2023 – DEC 2023

Instructed circuits laboratory for undergraduate students requiring lesson planning, co-authoring schematics/procedure manuals, grading, and communication with students and the instructor. Labs centered around breadboard prototyping analog electronics using multimeters, function generators, and oscilloscopes.

### RESEARCH ASSISTANT

VISIONYZE/MICHIGAN TECH – HOUGHTON, MI

JAN 2022 – JAN 2023

Responsible for creating and training neural networks to generate and interpret natural language for summarization topics. Training models using human feedback, user interface construction, coauthoring research publications, programming in Python, HTML, JS, and implementing the Zoom API.

### LABORATORY ASSISTANT

MICHIGAN TECH – HOUGHTON, MI

SEPT 2021 – JAN 2022

Instructed programming curriculum and assisted students with laboratory procedures and homework. Heavy use of C/C++.

### ENGINEERING INTERN

SKILLED MANUFACTURING INC. AEROSPACE –  
TRAVERSE CITY, MI

JUN 2018 – JUN 2019

Accountable for highly funded projects with strict deadlines, creation of detailed work instructions, fixture design, process engineering, manufacturing, as well as thorough documentation. Frequent use of SolidWorks and Microsoft Office.