

ABREHAM MINDAYE

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EDUCATION

New Jersey Institute of Technology, Newark, NJ

M.S, Software Engineering (ABET accredited)

Anticipated graduation: December 2022

New Jersey Institute of Technology, Newark, NJ

B.S., Electrical Engineering (ABET accredited)

Graduated: May 2020

SKILLS

- **Hardware and Equipment:** Building and troubleshooting PCs, Microprocessors, PLC & HMI programming, VFDs, Unmanned Aerial Vehicles
- **Software:** MATLAB, Microsoft Visual Studio, RSLogix 5000, FactoryTalk View, SolidWorks, Microsoft Office (Excel, PPT, Word, Access)
- **Programming Language:** C++, Python, MATLAB, Assembly Language, Ladder Logic

RELEVANT PROFESSIONAL EXPERIENCE

GEA Group, Northvale, NJ

Electrical Controls Engineer

June 2020 - Present

- Test and validate electrical controls hardware and software such as PLCs, HMIs, and VFDs
- Program Allen Bradley PLCs and HMIs for various end user applications
- Consult with clients and integrators to design control systems for a wide range of centrifuge applications
- Perform a series of calculations to select the ideal controls equipment and control panel design that will accommodate project specifications as well as satisfy safety guidelines such as NEC hazardous conditions
- Create factory acceptance test plans and standards; perform and document tests, extrapolate conclusions from test data and share results with the project team and the customer
- Assist with project commissioning and system startups at customer plant sites

Associate Electrical Controls Engineer

September 2019 - May 2020

- Troubleshoot customers' on-site issues via the phone or by physically visiting the site
- Design or modify PLC and HMI programs, using Rockwell software such as Factory Talk and RSLogix 5000, to tailor to specific project application
- Conduct panel checkouts to ensure proper wiring and functionality of all instrumentation as well as upload all necessary parameters and programs into panels

Electrical Controls Engineering Intern

June 2019 - August 2019

- Install, configure, and wire sensors and other instruments inside control panels
- Create scientific report including centrifuge and VFD test data
- Update and redline P&IDs and electrical drawings to meet project specifications

STEM at Bergen Community College, Paramus, NJ

UAV Research Intern (Team Leader)

June 2017 - September 2017

- Research, design, and program drone configurations to be used for the purpose of aerial field inspection of construction sites and power lines
- As team leader, coordinated and assigned tasks to other interns, as well as organized data received from field tests
- At the end of the internship, prepared a detailed report of the project cost, specifications, and technical diagrams using Microsoft Office tools (Excel, Word, PPT) and Solid Works

RESEARCH AND PROJECTS

Microscopic Image Processing Algorithm: Senior Design Project at NJIT

- Develop automated methods of localizing and tracking cells of microscopic videos for medical analysis
- Experiment with various methods of "filtering" the video sample for better image recognition
- Utilize MATLAB to write a series of algorithms to enhance the image recognition and automated cell motion tracking capabilities of the software

ADDITIONAL WORK EXPERIENCE

Cerullo Learning Assistance Center, Paramus, NJ

Tutor and Assistant Professor

February 2015 - May 2019

- Serve as a professional tutor for STEM courses such as Physics, Mathematics, and Chemistry
- Plan and facilitates weekly study sessions and lectures by collaborating with professors