

# Jeremy Acheampong

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## EDUCATION

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### University of Michigan - Ann Arbor

Ann Arbor, MI

*Master's of Science in Robotics*

Aug 2024 – May 2026

**Relevant Coursework:** Math for Robotics (Fall 2024), Programming for Robotics (Fall 2024)

### Capital University

Bexley, OH

*Bachelor's of Arts in Mathematics*

Aug 2020 – May 2024

**Relevant Coursework:** Intro to Computer Science, Algorithms and Data Structures, Intermediate Statistics, Introduction to Data Science, Linear Algebra, Calculus I-III, Differential Equations and Dynamical Systems

## WORK EXPERIENCE

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### Cyber Warfare Officer (17A)

May 2024 – Present

*Ohio Army National Guard*

Columbus, OH

- Active TS/SCI Security Clearance
- Lead and direct the daily operations of 10+ enlisted soldiers within the Cyber Electromagnetic Activities (CEMA) section, ensuring that all tasks were completed on time and to a high standard
- Collaborate with other unit sections to effectively integrate cyber warfare capabilities to ensure mission success

### Advanced Technology Research Center Intern

May 2024 – Aug 2024

*Air Force Research Laboratory*

Dayton, OH

- Developed an algorithm for augmenting real, small-scale, and synthetic datasets for CNN training
- Trained multiple models to evaluate the impact of augmenting different combinations of real, small-scale, and synthetic data on classifier performance
- Built a model assessment tool for evaluating and optimizing a classifier's performance

### Research and Development Intern

July 2023 – Aug 2023

*U.S. Army DEVCOM C5ISR Center*

Fort Belvoir, VA

- Trained a model for an infrared detection system using YOLO, PyTorch, and Python, specializing in identifying humans and objects
- Enhanced model accuracy by spearheading data collection and meticulous labeling of infrared images of mines and humans
- Authored & presented a detailed report, clearly communicating project methodologies & findings to team

### Undergraduate Research Fellow

May 2022 – July 2022

*Washington University in St. Louis*

St. Louis, MO

- Worked on performance testing and CaCO<sub>3</sub> scaling analysis of Polypyrrole (PPy) membrane for photothermal membrane distillation in seawater desalination, supervised by Dr. Young Shin Jun and Ping-I (Dennis) Chou
- Executed detailed experiments and comprehensive analysis focused on understanding and optimizing the performance and CaCO<sub>3</sub> scaling of a Polypyrrole (PPy) membrane
- Showcased research data and insights through presentations at symposiums and group meetings, alongside authoring a detailed report summarizing key research findings and implications

## LEADERSHIP EXPERIENCE

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### Co-Founder and Marketing Director

Jun 2021 – Present

*Regeneration*

Columbus, OH

- Regeneration is a virtual mentoring nonprofit organization created to help the youth academically, physically, mentally, and spiritually. Our purpose is to create a Christ-like community for our members.

## TECHNICAL SKILLS

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**Languages:** Python, C++, R

**Interests :** Computer Vision, Perception, Localization

**Technologies/Frameworks:** Linux, OpenCV, Git, Singularity, PyTorch, NumPy