

# Anthony Tugman

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## EDUCATION

Indiana University, Bloomington, IN May 2021  
**M.S in Intelligent Systems Engineering**

Indiana University, Bloomington, IN May 2020  
**B.S in Intelligent Systems Engineering** – Concentration in Cyber-Physical Systems  
Minors in Mathematics, Small Business Management – Cumulative GPA: 3.36/4.0

## PROJECTS

**InLocus REU**, Bloomington, IN May 2018-August 2018  
*Undergraduate Researcher*

- Integrated LoRa communication using Python scripts to transfer data from autonomous drones.
- Explored edge computing techniques to reduce power consumption and server load.

**Light Monitoring System for Indiana State Parks**, Bloomington, IN January 2018-May 2018  
*Embedded Systems Developer*

- Prototyped an embedded system and checked performance using oscilloscopes and multimeters.
- Designed an efficient PCB layout integrating the system microcontroller and sensors using Autodesk EAGLE and adapted a weatherproof device enclosure to dimension using Fusion 360.

**Improving Maker Technology For Older Adults**, Bloomington, IN August 2017-December 2017  
*Undergraduate Researcher*

- Fabricated 3D printed circuit connectors allowing those with impaired coordination to use the device. Documented my design so that researchers may incorporate it in future research.

**Alarm Mat**, Bloomington, IN August 2016-December 2016  
*Project Manager*

- Lead a team of three undergrads to create the device using laser cutting, 3D printing, and Arduino.
- Used the design process to bring the device from an idea on paper to fully functional.

## TECHNICAL SKILLS

- **Languages:** Python, Verilog, Arduino C, C, C++, Java
- **Platforms:** Linux, MacOS, Windows
- **Other:** 3D Printing, Laser Cutting, Git, Fusion 360, Autodesk EAGLE, Adobe Illustrator

## EXPERIENCE

**Teach IT Internship**, Bloomington, IN January 2018-May 2018  
*Student Intern*

- Developed personalized tutorials for adults in the community to improve their technology skills.

## LEADERSHIP

**Engineering Club**, Bloomington, IN September 2017-May 2018  
*Outreach Director*

- Executed methods for increasing club membership, successfully recruiting 20 members.

**Banneker Community Outreach**, Bloomington Indiana September 2016-January 2017  
*Student Mentor*

- Mentored underprivileged students, providing resources for them to meet academic goals.