

# BLAKE CAPELLA

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## EDUCATION

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**THE COLLEGE OF NEW JERSEY (TCNJ)**  
*Bachelor of Science in Electrical Engineering*  
*Minor in Physics*

EWING, NJ  
May 2020

- **GPA:** 3.91/4.00
- **Honors/Affiliations:** National Engineering Honor Society (*Tau Beta Pi*), Armstrong Scholar Award, Five-time Dean's List, IEEE Member

## RESEARCH EXPERIENCE

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**INTELLIGENT MEDIA PROCESSING LABORATORY**  
*Student Research Assistant*

EWING, NJ  
October 2017 - Present

- Developed an embedded system on a Raspberry Pi and PSoC board capable of using computer vision programs and machine learning classifiers while simultaneously controlling an RC Rover. Orchestrated collaboration between machine learning and embedded design teams.

**CARNEGIE MELLON UNIVERSITY**  
*Human Computer Interaction Institute REU Student*

PITTSBURGH, PA  
May 2018 – August 2018

- Spearheaded project investigating the potential benefits of machine learning classifiers on full body exercise classification. During the process, created experiments that led to the creation of a unique dataset, adapted machine learning models, and applied advanced statistical and experimental analysis techniques.

## WORK & PROJECT EXPERIENCE

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**PENNAPPS XVIII**  
*University of Pennsylvania*

PHILADELPHIA, PA  
September 7-9, 2018

- Participated in one of the nation's largest competitions for top STEM students.
- Within 48 hours, directed a small team during the creation of a fully functional information based medical emergency assistant on an embedded platform.

**DEPARTMENT OF DEFENSE**  
*Gains in Education Math and Science (GEMS), Near Peer Mentor*

FREDERICK, MD  
June 2017 - August 2017

- Coached a classroom of middle and high school students in problem solving and computer science. Supplying individualized guidance, students were able to create robots capable of solving diverse set of problems.

## SKILLS

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### **Programming Languages:**

- Python, C, Verilog, Java, C++, Assembly

### **Development Tools:**

- MATLAB, Simulink, LabVIEW, Xilinx Vivado, PSoC Creator, PSpice

### **Key Skills:**

- Problem Solving, Leadership, Writing

## LEADERSHIP SKILLS

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**THE BONNER INSTITUTE FOR CIVIC AND COMMUNITY ENGAGEMENT**  
*Bonner Community Scholar, AmeriCorps Member*

EWING, NJ  
August 2016 – Present

- Over the course of a 300-hour annual contract, taught over 200 first year students the basics of civic activism while coordinating over 20 full day service trips into the Trenton community. Participated in leadership workshops as well as informal trainings on teaching, communication, and wellness.