

# BLAKE CAPELLA

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## WORK EXPERIENCE/PROJECTS

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### CARNEGIE MELLON UNIVERSITY

PITTSBURGH, PA

*Human Computer Interaction Institute REU Student*

*May 2018 – August 2018*

- Comparison of various machine learning techniques and their performance in classifying stretches and exercises. Novel applications include computer vision, task segmentation and cognitive assistants.

### PENNAPPS XVIII

PHILADELPHIA, PA

*University of Pennsylvania*

*September 7-9, 2018*

- Participated one of the nation's largest hackathons. Working in a small team, created an emergency medical assistant capable of reducing the time until treatment as well as patient recovery rate in emergency health situations in residential areas.

### INTELLIGENT MEDIA PROCESSING LABORATORY

EWING, NJ

*Student Research Assistant*

*October 2017 - Present*

- Research into machine learning, and its applications. Primarily focused on implementation of Deep Learning on embedded systems.

### DEPARTMENT OF DEFENSE

FREDERICK, MD

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

*June 2017 - August 2017*

- Acted as a full-time mentor and teacher to middle and high school students in topics including Robotics and Computer Science.

## EDUCATION

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### THE COLLEGE OF NEW JERSEY (TCNJ)

EWING, NJ

*Bachelor of Science in Electrical Engineering*

*May 2020*

*Minor in Physics*

- GPA: 3.9/4.0
- Honors: Honors Program, Dean's List, Armstrong Scholar Award
- Select Coursework: Control Systems, Systems Engineering, Digital Circuits & Microprocessors, Signals and Systems, Embedded Systems, Communication Systems, Computer Architecture

## TECHNICAL SKILLS

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### *Programming Languages & Environments:*

- Python, C, Java, C++, Verilog, Arduino

### *Development Environments:*

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

## LEADERSHIP EXPERIENCE

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### THE BONNER INSTITUTE FOR CIVIC AND COMMUNITY ENGAGEMENT

EWING, NJ

*Bonner Community Scholar, AmeriCorps Member*

*August 2016 – Present*

Act as a liaison between the campus community and the Trenton area community. Work in a small issue-based team as a part of a 100+ person organization to raise awareness to civic issues ranging from environmental protection to mass incarceration through planned events and a 300hr service contract.

- El Centro de Recursos Para Familias: Created lesson plans and facilitated intermediate and advanced English class of 10 or more native Spanish speakers for more than 5 hours each week.
- New Jersey Department of Corrections: Assisted the Jones Farm Education Program in preparing inmates for the General Educational Development (GED) exam. Worked in a one on one environment teaching high school level topics.

*Community Engaged Learning Leader*

*August 2016 – Present*

- Acted as a Community Engaged Learning day facilitator and leader for groups of up to 30 students. Facilitated presentations and reflection sessions on TCNJ's campus before and after the day's events. Between days, participated in leadership development events ranging from conflict resolution to reflection and student management trainings.