BLAKE CAPELLA

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EDUCATION

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
- Select Coursework: Control Systems, Systems Engineering, Digital Circuits & Microprocessors, Signals and Systems

TECHNICAL SKILLS

Programming Languages & Environments:
- Java, C++, Verilog, Arduino, Eclipse, Unix, LaTeX, Python, Tensorflow

***Development Environments*:**
- MATLAB, Simulink, LabVIEW, Multisim, Xilinx ISE, PSpice

WORK EXPERIENCE/PROJECTS

CARNEGIE MELLON UNIVERSITY   PITTSBURGH, PA
Human Computer Interaction Institute REU Student   *May 2018 - Present*
- Research into potential uses of Machine Learning, Big Data, and Computer Vision to create an improved cognitive assistant. Using data collected by the *Microsoft Kinect V2* depth camera, we trained and developed multiple fully connected neural networks in *Tensorflow,* working towards a model able to classify a set of 10 full body stretches.

INTELLIGENT MEDIA PROCESSING LABORATORY   EWING, NJ
Student Research Assistant   *October 2017 - Present*
- Research into Convolutional Neural Networks, Machine Learning, and their 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.

LEADERSHIP EXPERIENCE

THE BONNER INSTITUTE FOR CIVIC AND COMMUNITY ENGAGEMENT   EWING, NJ
Bonner Community Scholar, AmeriCorps Member   *August 2016 – Present*
- El Centro de Recursos Para Familias: Created lesson plans and facilitated intermediate and advanced English class of 10 or more Spanish speaking participants. Worked in a team to raise awareness around immigration issues and reform.
- 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.