# ANJA SAMARDZIJA

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## Education

**Cornell University | Ithaca, NY**                                          May 2021
**College of Engineering**
Bachelor of Science in Electrical & Computer Engineering
**Relevant coursework**: *Biomedical Machine Learning (in progress), Principles of MRI (in progress), Digital Signal and Image Processing, Principles of Neurophysiology, Fundamentals of Machine Learning, Signals and Information, Mathematics of Signal and System Analysis, Computer Vision, Introduction to Probability and Inference for Random Signals and Systems, Computer Systems Programming, Intelligent Physical Systems*

## Professional Experience

**MRI Lab Weill Cornell Medicine |** New York City, NY                         June 2020– Present
*Research Assistant (mentored by Professor Yi Wang)*
- Pre-process T1 and QSM MRI brain scans and align them to common space templates
- Write programs to automatically segment regions of interest from MRI brain scans
- Design machine learning algorithms to extract information from MRI brain scans used in the diagnostic of the neurodegenerative disease amyotrophic lateral sclerosis

**Organic Robotics Lab Cornell University |** Ithaca, NY                        January 2019 – Present
*Research Assistant (mentored by Professor Robert Shepherd)*
- Layout and conduct micro-scale signal recordings of fungi electrical signals
- Write machine learning signal processing algorithms to detect and process patterns in fungi electrical signals
- Design circuitry for micro-scaled temperature and humidity sensors

**Space Systems Design Studio Cornell University in partnership with NASA |** Ithaca, NY        May 2019 – August 2019
*Research Assistant (mentored by Professor Mason Peck)*
- Wrote programming tests for embedded satellite system technology by working on a team of 6 software engineers
- Organized and participated in assembling the electrical component of the satellite with a focus on solar panel assembly
- Wrote technical test reports approved by NASA standards and participated in NASA meetings

**Cornell University Mathematics Department |** Ithaca, NY                      August 2018 – Present
*Calculus I & II Course Assistant and Tutor*
- Lead weekly group study sessions assisting students in solving calculus problems
- Grade 25 weekly homework assignments that consist of roughly 5 calculus problems each
- Participate in department meetings which enhance the quality of teaching mathematics

**University of Technical Studies Novi Sad & RTRK |** Novi Sad, Serbia          June 2018 – August 2018
*Intern, Deep Learning for Autonomous and Networked Vehicles*
- Learned the principles of Deep Learning, Convolutional Neural Networks, and TensorFlow
- Developed a program that classifies images into categories based on animal presence

## University Leadership

**Cornell Tradition Student Advisory Committee |** Ithaca, NY                   August 2018 – August 2020
*Co-President Position*
- Led a 12 person committee that manages and organizes community service events for 500 Cornell Tradition students
- Volunteered over 100 hours a semester at on-campus and off-campus service events
- Organized annual philanthropic events which average 100 participants

## Skills

**Programming**: Python, C, C++, Matlab, UNIX, Arduino, R
**Language**: English, Serbian, Russian (limited proficiency), Italian (in progress)
**Other**: FreeSurfer, FSL, SPM, Eagle, SolidWorks, Microsoft Office, problem-solving, communication, critical thinking