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OBJECTIVE

Internship/Coop experience in Biomedical/Electrical & Computer Engineering

EDUCATION

Worcester Polytechnic Institute (WPI), Worcester, MA
Expected Grad. May 2019
Bachelor of Science, Electrical and Computer Engineering (ECE) and Biomedical
Engineering (BME) with a concentration in Medical Device Design
Cumulative GPA: 3.71/4.0
ECE Major GPA: 3.68/4.0, BME Major GPA: 3.86/4.0

WORK EXPERIENCE

Peer Learning Assistant (PLA) for Bioinstrumentation Class
Oct 2017 - Present
Tutor struggling students with topics taught in class during office hours, grade assignments/exams and aid students during lab period.

Intern at Larsen & Toubro Medical Devices
May - July 2017
Worked on a project to develop a three-lead wireless electrocardiogram device. Researched algorithms to be implemented in C/C++ to process the cardiac signal and detect arrhythmias in real-time. Additionally, suggested components to redesign an existing five-lead ECG hardware for a mobile three-lead device.

Research Assistant at Myocardial Regeneration Laboratory
Dec 2015 - Jan 2017
Imaged infarcted heart cross-sections, analyzed images through MatLab to calculate infarct percentages, cut and stained decellularized material samples etc.

PROJECTS

BME Instrumentation Lab, Electrooculography (EOG) Driver Circuit
Jan - Mar 2018
Designed and constructed a circuit to detect eye movement and drive specific loads corresponding to the respective location of the eye. Constraints included tracking eye movement based on potential difference only (i.e. no camera) and processing the signal using only analog techniques (i.e. no microcontroller).

Cubicle Monitoring System, CEI Design Competition   2nd Place
Oct - Dec 2017
Designed and built system to notify students of cubicle occupancy at University library. Developed the sensing unit hardware, indoor light-harvesting power unit and the final android application along with team. Final presentation and live demonstration of the product was given to panel of judges and other competitors.

Biomedical Design, Sit-to-Stand Walker Project
Aug - Oct 2017
Designed a walker to assist elderly and disabled patients to stand. Final prototype walker was presented in class at the end of the term.

Embedded Computing in Engineering Design, MSP430F5529 Projects
Jan - Feb 2017
Completed projects requiring low-level bitwise programming on a MSP430 chip. Serial communication to peripherals through SPI, I2C and UART was required. Built an ambient weather display system as well as a function generator among other devices.

LEADERSHIP   **Model United Nations (MUN)**
Sept - June 2011-2017
Treasurer of WPI MUN club
Chaired the council to get fruitful debate while keeping exchange within the rules of MUN, Debated contemporary topics from the perspective of assigned country using skills of persuasion and collaboration to pass a resolution to tackle the topic problem.
Distinctions: Distinguished Delegate WPI MUN (2016) & Riyadh MUN (2014) Conference, Best Delegate of St. Petersburg MUN (2015) & Berlin MUN (2013)

SKILLS   *Programming Languages:* C, C++, Matlab, Basic Android Coding, Visual Basic, Racket BSL
Software: Solidworks CSWA Certification, Labview, Photoshop, MS Office Suite, Latex

LINKS   *LinkedIn:* www.linkedin.com/in/aatreya-chakravarti
Merit Page: http://meritpages.com/aatreya-chakravarti