Maya Davidovic

Biomedical Engineering

(416) 573-7581
davidovic.maya@gmail.com
www.linkedin.com/in/mayadavidovic
mayadavidovic.github.io

PROFESSIONAL SKILLS

- Passionate worker with strong problem-solving and interpersonal skills, as evidenced in achievements towards acquiring a Bachelor of Engineering degree
- Demonstrated ability to collaborate and lead effectively in a team-oriented environment, with 8 academic semesters working in team research and design projects
- Fluent verbal and written communication skills in English, French, and Serbian

ENGINEERING TECHNICAL SKILLS

- 1000+ hours of lab experience creating 3D models in SolidWorks, computing data analyses with MatLab, and finite element analyses using ANSYS WorkBench
- Strong background in bio-instrumentation, electronic circuits, systems control, signal processing, and clinical biomedical equipment through school courses and interest
- Proven ability to perform testing and troubleshoot for critical issues through the development and completion of engineering design projects and lab work

EDUCATION

Bachelor of Engineering, Biomedical September 2015 – May 2019
University of Guelph, Guelph, Ontario

- Achieved College of Engineering and Physical Sciences Dean's Honour List, Fall 2018 and Winter 2019 for average greater than 80%
- Relevant courses include Bio-Instrumentation Design, Electronic Devices, Biomaterials, Clinical Biomechanics, Introduction to Programming, and Engineering Economics

ENGINEERING EXPERIENCE

Fourth Year Capstone Project January – April 2019
Lumbar Puncture Device
School of Engineering, University of Guelph

- Designed prototype of device used for diagnostic lumbar puncture procedures, with the ability to detect when cerebrospinal fluid is reached, and measure intracranial pressure
- Technology utilized included pressure sensor, infrared proximity sensor, and LCD display, operated using Arduino microcontroller
- Tested and evaluated performance, as well as completed report and tradeshow presentation containing technical, cost, and design analyses

Biomechanical Engineering Design January – April 2019
Post-Operative Below-Knee Amputation Stability Device
School of Engineering, University of Guelph

- Created a prototype device for below-knee amputees to practice quiet standing balance and deter muscle atrophy, prior to receiving prosthetic
- Design process included collaborating with physiotherapist from St. Joseph's Health Centre, completing stress analysis, as well as CAD modelling and device fabrication

Clinical Biomechanics Case Study January – April 2019
Examination of Postural Control and Gait in a Patient 3 Years Post-Stroke
School of Engineering, University of Guelph

- Collaborated in a multi-disciplinary team with Human Kinetics students to complete a clinical analysis of a patient's biomechanical abilities, as impacted by an ischemic stroke
- Utilized 3 paper-and-pencil clinical tests to observe patient's sensory orientation, postural control, and dynamic gait
- Composed a formal case study report and presentation detailing the study performed

Bio-Instrumentation Design September – December 2018
Surgical Incision Site Infection Monitor
School of Engineering, University of Guelph

- Designed and created prototype of a device to be used to detect infections developing in patient's surgical incision site, worn by the patient for 30 days post-operatively
- Technology used included heart rate sensor, temperature sensor, and wound humidity sensor, operated using Arduino microcontroller, and interfaced on a smartphone app
- Presented device prototype in Bio-Instrumentation trade show, outlining technological and market analysis of device

WORK EXPERIENCE

Electrical Engineering Student May – August 2018
Ministry of Transportation, Electrical Engineering Department

- Conducted literature research with regard to provincial highway lighting in Ontario; implemented policy drafts for lighting configuration and initiated changes to standard lighting pole designs; presented findings and conclusions to the department
- Analyzed aspects of design including materials used, safety mechanisms, as well as environmental and economic impacts of the design; provided input to the department
- Communicated with electrical coordinators, suppliers, and MTO employees to update department documentation; attended site visit to analyze details of project location

Customer Service Administrative Assistant May – August, 2016 – 2017
Town of Oakville, Clerk's Department

- Administered documents for business and marriage licences using Microsoft Office and the AMANDA government network software
- Acted as a first point of contact for clients in a fast-paced environment, answering to multiple clients at once while managing 3 data-entry projects at a time

Piano Teacher September 2013 – August 2015
Oakville Conservatory of Music

- Taught children ages 4-13 beginner and intermediate level piano; communicated with parents about student's progress and next steps throughout the learning process

ACADEMIC AND COMMUNITY INVOLVEMENT

Casa de Cambio Club September 2017 – April 2019
University of Guelph

- Active member assisting with fundraiser planning and execution; recruited over 10 new club members