

Artur Śmiechowski

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Objective

Biomedical Engineer with wide technical experience looking for a mechatronics role involving biomimetic robotics development. Maker and tinkerer at heart.

Education

University of Vermont / Biomedical Engineering
August 2018 - Graduated May 2022, Burlington, VT

GPA : 3.93

Minors in Electrical Engineering and Mathematics

Honors Thesis on Medicated PVA Cardiac Patches

Technical Skills

Strong Computational Skills- Python, Java, C#, C++, MATLAB, Unity Engine

Machine Learning Models, TensorFlow, Scikit-Learn, PyTorch

Biomechanical Modeling, FEA, Solidworks, Biomaterial Synthesis/Testing

Work Experience

Software Engineer, KMC Systems

September 2022 - Current, Merrimack, NH

- Designing software to control medical laboratory robotics and implement behavior routines. Heavy collaboration with systems Engineers to bridge software and hardware needs. Focus on multi-sensor control systems for biofluid detection and tracking.

Undergraduate Researcher, Engineered Biomaterials Research Lab

September 2020 - September 2022, Burlington, VT

- Designed and constructed prototypes for headset mountings for pre-op use on children. CAD heavy work with SLA 3D printing and material selection focus for ease of sterilization.
- Worked on drug releasing hydrogel patches for heart implantation. Biomaterial preparation and protein drug release assays. Collaborated with the drug designer to create the delivery vehicle.

Undergraduate Researcher, Glass Brains Lab

September 2021 - December 2021, Burlington, VT

- Collected and analyzed EEG data from patients with and without depression during periods of waiting. Investigated the correlation between mood and boredom using machine learning (Scikit and PyTorch) on EEG datasets.

Teaching Assistant / EE 101 / BME 296

January 2021 - December 2021, Burlington, VT

- Oversaw microcontroller lab class. Assisted students with circuit design and programming for a variety of microcontroller applications.
 - Assisted students in Brain Computer Interfaces course using Python and machine learning libraries to filter and analyze large EEG datasets.
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Honors and Awards

Xerox Award for Innovation in Science and Math 2018

UVM Dean's List 2018-2022

Nasa Vermont Space Grant 2021