

## Education

- 2020-Present **Bioengineering Research PhD (CDT in Prosthetics and Orthotics), Imperial College London**  
Supervisor: Dario Farina
- 2016-2020 **MEng Biomedical Engineering, Imperial College London**  
First Class Honours (78.14)

## Research Experience

- 2020-Present **PhD project:** Intent-Driven Gait Synthesis for Simulated Assistive Technology. Transfer insights from simulated to real powered prostheses and an exoskeleton. PPO based gait policy learning in environment simulated in MuJoCo. **Presented at SSNR22.**
- 2021-2022 **Research paper:** Improving Robustness of Convolutional Predictive Models of Gait to EMG Variability. **Presented at EMBC 2022, Submitted for review to IEEE TNSRE.**
- 2019-2020 **Master's project:** Temporal Convolutional Network Based Trunk Muscle Signal Decoding for Exoskeleton Applications. Built data loading, systematic training and automatic documentation systems. **Presented at BioMedEng22 Conference.**
- 2018-2019 **Year 3 group project:** Develop CNN-based parallelised automatic brain-cell counting algorithm. **Accepted at BioMedEng19 Conference.**
- Jul-Sep 2018 **Undergraduate Research Opportunities Programme:** Accessible modular user interface design for controlling various assistive technology. **Accepted at AAATE Conference 2018.**

## Skills

- **Technical skills:** Signal processing, Brain Machine Interfacing, Supervised and Reinforcement learning (Keras and Pytorch), Gait analysis
- **IT:** Python, C#, C++, Arduino, Git, Unity, MuJoCo, LaTeX
- **Med-device Entrepreneurship:** Modules about patents, IP, regulations (MDR), and tech transfer
- **Communication:** Supervised master student project on prototype ankle exoskeleton, experience as teaching assistant, PhD student society chair.

## Interests and Successes

- Organising committee member of CDT P&O Conference 2021
- Year 3 Dean's list, best poster award for year 3 project
- Courses in creative writing, sound technology, philosophy
- **Personal Projects:** Heart rate monitor, portable oscilloscope, programming video games, image processing app, worldbuilding
- Dragon boat championships, Played guitar for 10 years