

Max Taylor-Davies

maxtaylordavi.es | [github](https://github.com)

84 Edith Road, London W14 9AR | maxtaylordavies@gmail.com | 07858288396

Education

Imperial College London

2017-2021 (expected) MEng Molecular Bioengineering (predicted 1st class)

Projects

- 3rd year group research project (*ongoing*): working to develop and train Generative Adversarial Networks (GANs) to synthesise realistic fake images of eczema-infected skin. The images will then be used to augment the training set for a CNN eczema severity classifier that can be deployed in the home for patient use.
- 2nd year Engineering Design Project: designed and fabricated a revolutionary microfluidic "lab-on-chip" device to predict and monitor drug resistance in breast cancer patients from a few drops of blood.

Activities

- Social secretary, Imperial College Big Band (2018-19)
- PR secretary / webmaster, Imperial College Big Band (2019-20)

Technical Skills

- Backend web development in Go
- Frontend web development in React/Typescript
- Cross-platform mobile development in React Native
- Data mining / web scraping in Python
- Signal processing in Python, MATLAB
- ML development + deployment in PyTorch (RNNs, CNNs, GANs), MATLAB

Work Experience

MedEngine GmbH

- June - October 2017 **Summer Intern (mobile development)**: worked on a mobile app for

Parkinson's disease care using React Native. Met with Parkinson's disease patients to understand their needs, and then implemented features such as mood tracking, diary with voice input, medication scheduler.

- October 2017 - June 2018 **Researcher (data science / engineering)**: worked on the development of new models and techniques for classifying Parkinsonian tremor severity based on raw motion data from the iPhone's builtin sensors.
- June - October 2018 **Software engineer**: built, from scratch, a platform to allow MedEngine data scientists to easily view and label raw motion data collected from patient devices alongside video captured during hospital trials. This involved developing in-house video streaming and data visualisation tools in Go and React/Typescript. The platform removed a large amount of friction from the job of labelling data and validating analysis algorithms, and made the lives of data scientists easier.

Imperial College Business School

- October 2019 - ongoing **Research assistant**: working on mining + scraping large amounts of blockchain data for analysis as part of a research project (in python).

Additional experience

- Won the sponsor prize at [Imperial College HealthHack 2018](#)