# Jennifer Jiang-Kells

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## Experience

### University College London / University College Hospitals NHS Trust

Sep 2021 - Current

Senior Software Developer / Honorary Researcher

London, UK

- Built the backend for MiADE, a research service which includes entity extraction NLP algorithms and electronic health record system (EHRs) communication APIs, leading to publication, conferences, and 3 open-source libraries
- Deployed microservices-based AI systems into real-time clinical environments at 2 NHS Trust sites in London
- Technical lead in securing £600,000 UKRI research project grant to optimise clinical data extraction using LLMs

LV8 Sports Ltd. Sep 2019 - Aug 2021

Software Developer

London, UK

- One of first 2 developers on the team to successfully launch Grow Football, a fitness iOS application which uses real-time object detection, pose estimation, computer vision, and AR technologies
- Achieved 20% improvement in model performance by engineering custom architectures and data augmentation
- Established end-to-end data pipeline for processing biomechanics metrics, leading to enhanced user engagement

## **University College London**

Mar 2018 - Sep 2018

Computational Neuroscience Research Assistant

London, UK

- Worked in DeepMind-funded research on the neural basis of spatial navigation in Prof Caswell Barry's lab
- Modelled irregular grid cells using maximum-likelihood decoding of simulated Poisson neural spiking dynamics

## **Projects**

WodGPT (2024) | Langchain, Vercel, NextJS

Chat with your Crossfit workout data

Brigid - Anthropic Hackathon London (2023) | Claude, Haystack, Langchain, Streamlit

Using LLMs to generate lay-term summaries of clinical trials on clinicaltrials.gov [DevPost]

RSNA Intracranial Haemorrhage Detection Challenge - Kaggle Competition (2020) | Pytorch, sklearn, Pandas

• Built classifier to identify different types of acute ICH in CT scan images using ResNet and transfer learning

Deep Automatic Understanding of Music Through EEG - MSc Thesis, Distinction (2019) | Pytorch, Keras, sklearn

• Designed and evaluated 1D and 2D CNNs (DenseNet), LSTMs, SVMs and kNNs for time-series and spectrogram representations of high-dimensional EEG signals to predict music preference from human EEG signals

#### Education

Imperial College London  MSc Computing Science	2018-2019
University College London  MSc Clinical Neuroscience	2016-2017
University College London BSc Human Sciences	2013-2016

### Technical Skills

Languages: Proficient - Python, C++, C, Swift / Experience in - Java, R, MATLAB

Technologies: SpaCy, TensorFlow, PyTorch, Sklearn, HuggingFace, Langchain, Flask, FastAPI, Docker, Nginx, Azure, Git,

Streamlit, Vue.js, Vercel

Concepts: Natural Language Processing, Artificial Intelligence, Machine Learning, Neural Networks, Prompt Engineering, Computer Vision, Transformers, Large Language Models, API, Agile Methodology, Microservices, Cloud Computing