

Nikesh Lama

Data Scientist



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About me

An ambitious computational neuroscience Ph.D. graduate with research experience spanning diverse disciplines of neuroscience, computer science, machine learning and statistics. Adept at handling large-scale data from acquisition, cleaning, processing to performing various relevant statistical analyses and visualisations. Currently looking for exciting opportunities in the industry to apply my skills from the research background and learn and grow as an AI/data scientist.

Core Skills

MACHINE LEARNING (*Decision Trees, Random Forest, SVM, K-means, Mean shift, Linear/Logistics/Polynomial Regression*)

DEEP LEARNING (*CNN, Autoencoder, LSTM, Meta-imitation Learning*)

SPIKING NEURAL NETWORK

PYTHON (*Numpy, Pandas, Scikit-learn, Matplotlib, Seaborn, Dash, Statsmodel, Folium, Keras, TensorFlow, OpenCV*)

MATLAB, R, SQL, C/C++

UNIX Utility, Git

HYPOTHESIS TESTING

SCIENTIFIC DATA FORMATS (*HDF, MAT, NeuroML, GRIB*)

Experience

CNCR Lab/Research Fellow

April 2020 - June 2021, Nottingham Trent University

Developed a multimodal 3D CNN-based architecture using TensorFlow for imitation learning with audio cues and video demonstrations. Generated simulated training video data using MuJoCo OpenAI agent.

July 2019 - March 2020, Nottingham Trent University

Conducted pilot study on the 3D bioprinting of primary neuronal cells onto MEAs for a biologically faithful and reproducible model. Recorded, cleaned, analysed and visualized neuronal signals. Developed a data pipeline to process neuronal signals.

CNCR Lab/Research Assistant

Sep 2018 - June 2019, Nottingham Trent University

Implemented CNN-based one-shot learning algorithm (MAML - Python/Tensorflow) to generalise robotic tasks during training and solve unseen tasks. Developed a skeletal feature extraction algorithm based on the video demos to assist in domain shift from human to robot.

EU funded Si Elegans project /Software Developer/Embedded OS Developer

April 2017 - August 2018, Nottingham Trent University

Designed and developed a web interface (PHP/MySQL/Python/Dash) that facilitates the use of high-performance FPGA clusters to run resource heavy spiking neuron network models which are easily configurable from the web interface.

August 2015 - January 2016, Nottingham Trent University

Implemented an embedded Linux operating system on a high-performance ARM cortex-A9 embedded processor to communicate with the FPGA fabric to support the development of neural and muscle models. Designed, developed and documented data library to convert configuration XMLs to Hexadecimal and vice versa.

Education

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|-----------|--|---|
| 2016-2020 | Ph.D. | Computational Neuroscience |
| | Thesis title: "Neuronal Dynamics and Connectivity Analysis of Neuronal Cultures on Multi Electrode Arrays" | |
| | Nottingham Trent University, UK | |
| 2014-2015 | MSc | Engineering(Cybernetics and Communications) |
| | Nottingham Trent University, UK | |
| 2009-2012 | BA (Hons) | Business Information Technology |
| | University of Wales Trinity Saint David | |

Awards and Certifications

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|-----------|---|
| 2021 | IBM Data Science Specialization, Coursera |
| 2021 | Machine Learning , Stanford University, Coursera |
| 2016-2019 | Recipient of Vice-Chancellor's PhD Scholarship |
| 2015 | Overall best MSc student in School of Computing and Engineering |

Projects

Title: **Identification of Ideal Locations for Student Accommodation**

Description: Data science approach to identify best locations around Nottingham Trent University to start student accommodation business. The project utilises pandas, numpy, foursquare api, gecoder api, folium, matplotlib, seaborn and k-means clustering. [Read here, Jupyter Notebook]

Publications

List of my publications are available in my [google scholar](#)