Iman Malik

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22 ● Female ● Montréal, QC

My research interests lie at the intersection of machine learning and music. With my research, I wish to enhance the interpretability of generative models for use as AI-augmented tools for humans.

EXPERIENCE

ELEMENT AI
Applied Research Scientist
Mar 2018 - Present

UNIVERSITY OF BRISTOL
Research Assistant
Jul 2017 - Oct 2017

JP MORGAN CHASE & CO.
Technology Summer Analyst
Jun – Aug 2016

RBC CAPITAL MARKETS
Technology Summer Analyst
Jun – Aug 2015

EDUCATION

UNIVERSITY OF BRISTOL
MEng Computer Science
Oct 2013 – Jun 2017
First Class Honours ≈ GPA 4.00

A-LEVEL/IGCSES
Self-taught in Saudi Arabia
Sept 2011 – June 2013

VOLUNTEER WORK

DIGIMAKERS
University of Bristol
July 2017 – Oct 2017
These workshops aim to inspire the next generation of technical innovators by providing an introduction to Computer Science.

SCHOOL TUTOR
Tehama International School
Sept 2011 – Jun 2013
I supported IGCSE and A-Level students by teaching and providing one-on-one tuition.

PUBLICATIONS

Bodin E, Malik I, Campbell N.& Ek C
Nonparametric Inference for Auto-Encoding Variational Bayes (2017)
arXiv:1712.06536
Malik I & Ek C
Neural Translation of Musical Style (2017)
arXiv:1708.03535

TALKS

PyData Conference (Warsaw 2017)
Invited Speaker
Talk on "Neural Translation of Musical Style".
COMSM0018 Deep Learning Unit
Invited Speaker
Talk on "Neural Translation of Musical Style".

TECHNICAL SKILLS

Experienced
Python ● C ● Tensorflow ● Matlab ● PyTorch ● MPI ● OpenCL
Bash ● OpenMP ● OpenCV ● HTML & CSS ● LaTeX
Familiar
Ruby on Rails ● Haskell ● R ● JavaScript/Node.js
Java (+ Android SDK) ● SQL

ACHIEVEMENTS

2017	Teaching Assistant for Machine Learning
2017	Teaching Assistant for Computer Graphics
2016	Top marks in Computational Bioinformatics and Computer Graphics.
2014-16	E&D Officer of the Computer Science Society.
2014	Selected for the Schlumberger Women in Technology programme.
2013	Started university at the early age of 17.

RECENT PROJECTS

FINAL YEAR MASTER'S PROJECT
"Neural Translation of Musical Style"
Jan 2017 - May 2017
Designed a neural network architecture called StyleNet for the purposes of learning musical style through the dynamics of music. The Piano dataset was created for the purposes of learning musical style.

GAMES PROJECT
"Rollout"
Sept 2015 - May 2016
Developed an augmented reality robot battle brawler game in a team of six. The game included two spherical robots in a projected virtual arena.

GENETIC ALGORITHM PROJECT
Sept 2016 - Dec 2016
Researched, designed, and implemented a genetic algorithm for optimising the Capacitated Vehicle Routing Problem.

ROBOTICS PROJECT
Sept 2016 - Dec 2016
Developed a particle filter for localising a real-life robot.

HIGH PERFORMANCE COMPUTING PROJECT
Sept 2015 - Jan 2016
Optimised computationally expensive code for Lattice-Boltzmann problems using OpenMP, OpenMPI, and OpenCL on the university's supercomputer, BlueCrystal.

HOBBIES

Dance	Performer in the Bollywood Dance Society.
Music	Creating experimental/electronic music.
Youtube	Algorithm Channel on YouTube.

REFERENCES

Supervisor — Dr. Carl Henrik Ek
carlhenrik.ek@bristol.ac.uk