

Iman Malik

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22 • Female • Montréal, QC

My research interests lie at the intersection of machine learning and music. I want to augment the creative process to allow humans to better express themselves by collaborating with AI.

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](https://arxiv.org/abs/1712.06536)

MALIK I & EK C
Neural Translation of Musical Style (2017)
[arXiv:1708.03535](https://arxiv.org/abs/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