

Iman Malik

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21 • Female • Bristol, U.K

I want to understand what constitutes the human identity. Once we have a representation of the human identity, we can apply it to different creative pursuits such as music, art, and expression. In this way, we are bridging the gap between human expression and artificial intelligence.

EXPERIENCE

UNIVERSITY OF BRISTOL

RESEARCH ASSISTANT

Jul 2017 - Present

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

- AAAB in Mathematics, Physics, Chemistry and Biology A-Level.

- 6A*AB in English, Chemistry, Biology, Physics, Geography, ICT, Mathematics, and Urdu IGCSE.

VOLUNTEER WORK

DIGIMAKERS

UNIVERSITY OF BRISTOL

July 2017 - Present

My duties include organising and planning workshops for children. These workshops aim to inspire the next generation of technical innovators, creatives and engineers 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

MALIK, I. & EK, C. H.

Neural Translation of Musical Style (2017)
[arXiv:1708.03535](https://arxiv.org/abs/1708.03535)

TECHNICAL SKILLS

EXPERIENCED

Python • C • Tensorflow • Matlab • 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 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. A dataset called the Piano dataset was created for the purposes of learning musical style. The research concluded that StyleNet's musical performances successfully pass the musical Turing test; the designed architecture can successfully synthesise the dynamics of sheet music.

GAMES PROJECT

"ROLLOUT"

Sept 2015 - May 2016

Developed an augmented reality robot battle game in a team of six. The game included two spherical robots in a projected virtual arena. Challenges included producing a real-time tracking system using image processing while working within the constraints of the colours and objects in the game environment. Other contributions included game design, and creating a 3D sound system suitable for public showcasing.

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