### LANCELOT **BLANCHARD**

Fourth year Student in MEng Computing AI & ML Imperial College London

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#### **EDUCATION**

## MEng Computing (AI & ML), Imperial College London

- First Class Honours in Years 1, 2 and 3.
- · Dean's List in Year 2.
- Awarded by the 2018 Entrance Scholarship for best application.

## French Scientific Baccalauréat with International Option (OIB)

- · Highest Honours (average 18.69/20).
- · Highest mark in Computing, Mathematics, Natural Sciences, Philosophy and Science Group Project.

## Classical Piano and Music Theory, Conservatory of Rennes

- · Grade 8 Equivalent with Advanced Harmony.
- · Honours.

#### **WORK EXPERIENCE & PROJECTS**

Neurosymbolic Learning for Music Information Retrieval (Master's Thesis Project)

Oct 2021 - Present

- · Work to create explainable & interactive model for Music Classification & Music Recommendation, allowing human interaction.
- · Research in Neurosymbolic AI, Human-Computer Interaction, Music Information Retrieval and Signal Processing.

2018

2022

2015

2018

2006

2018

Amazon UK - Business Intelligence Engineer

May 2021 - Sep 2021

- · Worked as part of the Amazon Pan-EU Fashion Data & Analytics Team. Developed a full internal product to provide interactive action-orientated feedback to customers. Performed ad-hoc data analysis and wrote business reports.

  • Worked with React and a wide-range of AWS services (notably Cloudformation, S3, Lambdas, RDS, Redshift, QuickSight)

Visual Flow-based Neural Network Builder - IVANN (Third Year Group Project)

- Developed an Open Source Webapp which provides a Graphical Interface to generate Neural Networks coded in Python.
  Improved knowledge of AI and ML Python Libraries such as PyTorch, Scikit-Learn and Tensorflow as well as Full Stack skills.

#### Privitar - Software Engineer Intern

Jun 2020 - Sep 2020

Worked as part of the API Team in order to implement complete APIs for both internal and external use cases.
Worked with Java, Spring, and Hibernate for MySQL, PostgreSQL and Oracle databases. Also used Data tools such as Apache Hadoop, Apache Hive, Apache NiFi and Apache Kafka.

DJ Synchronisation Technology - DJStreamr (Second Year Group Project)

Jun 2020

- Designed and implemented a brand-new technology to allow the synchronisation and livestreaming of remote DJ gigs.
  Practiced Full Stack skills using Typescript, HTML, CSS and Vue.js on the Frontend, and Kotlin and AWS on the Backend.
  Gained interest of Music Tech companies (Native Instruments) and DJ labels (DEFECTED). Ranked 3rd best project overall.

Al Chess Player (First Year Group Project)

Jun 2019

• Developed a C Program that uses OpenCV to detect the state of a physical chess board using a phone's camera. State is processed by AlphaZero Al over SingularityNET to answer the best next move. Awarded Most Interesting Project Prize.

Analysis of Spotify Algorithmic Playlists (Year 13 Computing Group Project)

Jun 2018

- Developed Python algorithms to collect data of tracks featured on different Spotify Algorithmic playlists over time.
- Analysed the data using R to find correlations between track peak positions, the duration of their stay in the playlist and their keys as well as Spotify's own 'Audio Feature' parameters. Received highest mark for the project.

#### SKILLS & INTERESTS

#### ADDITIONAL EXPERIENCE

# Computing

Python, Java, Kotlin, C, C++, Haskell, Git, R, SQL, Vue.js, HTML, CSS, PHP, Javascript, Typescript, Linux, AWS, GCP, Hadoop, Hive, Scikit-Learn, PyTorch, Tensorflow,



French (Native), English (Fluent), German

Piano, Guitar, Production, Songwriting, Mixing, Sheet Writing, Synth Design



10k runner (personal best 43:41)

## Imperial College Data Science Society

Oct 2019 - Present

 Active member and Teaching Assistant. Help tutoring several concepts of Data Science, Artificial Intelligence and Machine Learning.

#### ICR Production

Oct 2019 - Present

University Recording Studio & Label

- Manage a fully equipped recording studio and train people to use the equipment with monthly workshops.
- · Record bands, broadcast live sessions on the University radio and share recorded music online.

### SENSE

Mar 2016 - Present

Music Group signed with Nettwerk

· Develop business and machine learning strategies leading songs to the Top 10 charts in the Philippines and Top tier Playlists.