LANCELOT **BLANCHARD**

Musician - Engineer - Al Researcher MIT Media Lab

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EDUCATION

PhD in Media Arts & Sciences, MIT Media Lab 2023 2024 MIT Presidential Fellow. present

• Research in AI & Music at the Responsive Environments group.

MRes AI & ML, Imperial College London

· Visiting student at Fluid Interfaces, MIT Media Lab

• Thesis: Human-Al Co-Reasoning: Augmenting Human Debates with Interactive Neurosymbolic AI Systems

MEng Computing (AI & ML), Imperial College London

· Highest Honours, Dean's List and 2018 Entrance Scholarship.

• Thesis: GenFastLAS: Scaling up the FastLAS system to large feature spaces, and application to Symbolic Music Genre Classification

Classical Piano and Music Theory, Conservatory of Rennes

SELECTED PROJECTS & PUBLICATIONS

Generative Al-powered Vocal Harmonization (In Review for NIME 2025)

• Use Singing Voice Conversion Models, Pitch Extraction Models, and MIDI generation models for vocal harmonization.

jam_bot, Real-Time GenAl System for Musical Improvisation (Published in MIT Press)

· Work with GRAMMY-winning artist Jordan Rudess to build novel Human-Al Co-Created Live Music Performance.

2022

2023

2018

2022

2006

2018

• Optimize GPT2-based MIDI generation models for real-time interaction and implement diverse interaction modalities.

• Recipient of MIT's Generative Al Impact Publication Grant (\$70K).

Living Memories: Al-Generated Characters as Digital Mementos (Published at IUI 2023)

• Used Semantic Models, LLMs, and Generative AI to construct interactive and compelling digital mementos.

Studied the impact of using the system on curiosity, learning effectiveness, and motivation.

Symbolic Music Genre Classification with Scalable Logic-based Learning (MEng Thesis)

• Developed GenFastLAS, an automated logic-based learning system that can efficiently scale to large feature spaces.

Applied it to the genre classification of symbolic music using novel music theory features.
Project supervised by Prof. Alessandra Russo. Received Distinction (86%).

EMPLOYMENT HISTORY

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)

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.

SKILLS & INTERESTS

ADDITIONAL EXPERIENCE

Computing



Python, Java, Kotlin, C, C++, JUCE, SQL, Vue.js, HTML, CSS, PHP, JS, TS, AWS, GCP, Scikit-Learn, PyTorch, Tensorflow



Languages

French (Native), English (Fluent), Italian, German

Sports



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



NYC Marathon Finisher

Boston Al Music Meetup Organizer

Aug 2024 - Present

· Host monthly meetups for the Al Music community around the Boston area, with academic and industry expert speakers.

· Collect fundings from industry sponsors including Suno and Meta.

Startup Founder - DJStreamr

Jun 2020 - Sep 2020

• Designed novel technology to synchronize and livestream remote DJ gigs.

• Gained interest of Music Tech companies (Native Instruments) and DJ labels (DEFECTED).

Music Producer, Jazz Pianist

Mar 2016 - Present

Totalled over 14M streams on streaming platforms.
Reached Billboard's Top 10 in the Philippines and top tier playlists.

• Received MIT's Emerson/Harris Fellowship to be part of Jazz Ensemble.