LANCELOT **BLANCHARD** Musician - Engineer - Al Researcher MIT Media Lab CONTACT 534 Beacon Street, Apt 303 0 Boston, MA 02215 1-617-335-7712

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EDUCATION

Master's of Media Arts & Sciences, MIT Media Lab • 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 (average 81.24%).

• Dean's List (Year 2, Year 4) 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

MAIN PROJECTS & PUBLICATIONS

Generative AI for Musical Accompaniment (in Preparation for MIT Press)

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Sep 2023 - Present

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

2023 2025

2022

2023

2018

2022

2006

2018

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

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

inHarmony: Community Belonging and Al Choirs (In Preparation for ISMIR 2024)

May 2023 - Present

Use SOTA Singing Voice Conversion models (SVC, RVC) to develop interactive AI choirs.
Study the impact of experience on sense of community belonging and social anxiety.

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

Oct 2022

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

Co-authored with Pat Pataranutaporn, Valdemar Danry, Lavanay Thakral, and Prod. Pattie Maes (MIT), and Misha Sra (UCSB).

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

Computing

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



Languages

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





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



NYC Marathon Finisher

Al Music Reading Group Organizer

Sep 2023 - Present

· Host weekly discussions with international colleagues and leaders of the

ADDITIONAL EXPERIENCE

· Contributing institutions include Adobe, Carnegie Mellon University, Stanford University, and Queen Mary University of London.

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).

Freelance Music Producer

Mar 2016 - Present

Totalled over 14M streams on streaming platforms.

• Reached the Top 10 in the Philippines and top tier playlists.

Managed Imperial College's fully-equipped recording studio.