TERESA PELINSKI

creative computing researcher – with a focus on practice research and digital musical instruments
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Research Interests: creative computing, practice research, new interfaces for musical expression, science and technology studies, design, human-computer interaction

Technical Skills: ML/DL, physical computing, embedded systems, real-time systems, web development, self-hosting, application deployment pipelines, Linux system administration

RELEVANT EXPERIENCE

Associate Lecturer
at the Creative Computing Institute, University of the Arts London *Oct. 2024 - Apr. 2025*
Teaching STEM for Creatives and Artificial Intelligence for Media at the MSc Data Science and AI for the Creative Industries (currently MSc Applied Machine Learning for Creatives).

Teaching Assistant
at the Dyson School of Design Engineering at Imperial College London *Nov. 2024*
Assisting at the Gizmo: Physical Computing module, part of the MEng Design Engineering.

Intern *at Bela* *Apr. 2023 - Sept. 2023*
Developing pybela, a library for interfacing the Bela embedded platform with Python.

Associate Lecturer
at the Creative Computing Institute, University of the Arts London *Oct. 2022 - Dec. 2022*
Teaching the Natural Language Processing for the Creative Industries module at the MSc Data Science and AI for the Creative Industries (currently MSc Applied Machine Learning for Creatives).

Teaching Associate
at Queen Mary University of London *June 2022 - July 2022*
Assisting at the Interactive Media Design and Production, module part of the BSc(Eng) Telecommunications Engineering with Management.

Teaching Assistant
at Queen Mary University of London *Jan. 2022 - May 2022*
Assisting at the Interaction Design undergraduate (third year) and graduate module.

EDUCATION

Queen Mary University of London, UK *Sept. 2021 - Present*
PhD student at the CDT in Artificial Intelligence and Music, supervised by Prof Andrew McPherson and Prof Rebecca Fiebrink, and supported by UKRI and Bela. Affiliations: Centre for Digital Music (C4DM) and Augmented Instruments Lab. Visiting researcher at Imperial College London and University of the Arts, London. Enrichment Placement Award at the Alan Turing Institute (Oct. 2023 - June 2024).

Universitat Pompeu Fabra, Spain *Sept. 2020 - Aug. 2021*
M.Sc. Sound and Music Computing (60 ECTS). Average grade: 97%. Master thesis (Grade: 100%, DOI: 10.5281/zenodo.5554854) supervised by Prof Sergi Jordà and Dr Behzad Haki at the Music and Multimodal Interaction Lab, part of the Music Technology Group.

RWTH Aachen University + Institute of Technical Acoustics, Germany *Oct. 2018 - Sept. 2019*
Erasmus scholarship. 20 ECTS (5 modules) on acoustics at the Institute of Technical Acoustics. Bachelor Thesis supervised by M.Sc. Philipp Schäfer and examined by Prof Michael Vorländer, grade: 95%.

Universidad Autónoma de Madrid, Spain *Sept. 2016 - June 2020*
B.Sc. Physics (4 years, 240 ECTS). Focused on theoretical physics. Average grade: 78%.

Ironhack Madrid, Spain *Oct. 2019 - Apr. 2020*
Full-stack web development coding bootcamp.

SELECTED PUBLICATIONS AND CONFERENCE TALKS

- Pelinski, T., Moro, G. & McPherson, A. (2025). pybela: a Python library to interface scientific and physical computing. in *Proceedings of the International Conference on New Interfaces for Musical Expression*. Canberra, Australia. https://teresapelinski.com/documents/2025-nime-pybela.pdf (Conference paper, upcoming)
- Pelinski, T., McPherson, A., & Fiebrink, R. (2024). Ways of knowing, ways of writing: technical practice research in new musical instrument design. *Journal of New Music Research*, 53(1–2), 79–92. https://doi.org/10.1080/09298215.2024.2442348 (Journal paper)
- Pelinski, T. (2024) The dialectics of resistance and accommodation in the practice of debugging. *Code as Conversation: Transmedia Dialogues Around Critical Code Studies.* Cambridge University, UK. (Conference presentation)
- Pelinski, T., Diaz, R., Benito Temprano, A. L., McPherson, A., (2023) Pipeline for Recording Datasets and Running Neural Networks on the Bela Embedded Hardware Platform in *Proceedings of the International Conference on New Interfaces for Musical Expression*. Mexico City, Mexico. http://nime.org/proceedings/2023/nime2023_22.pdf (Conference Paper)
- Haki, B., Pelinski, T., Nieto, M., Jordà, S. (2023). Completing Audio Drum Loops with Symbolic Drum Suggestions in *Proceedings of the International Conference on New Interfaces for Musical Expression*. Mexico City, Mexico (Conference Paper) http://nime.org/proceedings/2023/nime2023_34.pdf
- Pelinski, T., Caspe, F., McPherson, A., Sandler, M., (2023) Computing ecosystems: neural networks and embedded hardware platform in *CHI2023 Workshop - Beyond Prototyping Boards: Future Paradigms for Electronics Toolkits*. Hamburg, Germany. (Workshop position paper)
- Pelinski, T., (2022) Anomaly detection as means of sensing subtlety and nuance in musical gesture in *Embedded Perspectives of Musical AI Workshop*. Oslo, Norway. (Workshop talk)
- Pelinski, T., (2022) Some considerations on the design of digital musical instruments. *Jornada de Organología (Organology Seminar)* at Universidad Complutense de Madrid, Spain. (Invited talk)
- Haki, B., Nieto, M., Pelinski, T. & Jordà, S. (2022). Real-Time Drum Accompaniment Using Transformer Architecture. *Proceedings of the 3rd Conference on AI Music Creativity*. Online, anywhere. (Conference Paper) DOI: https://doi.org/10.5281/zenodo.7088343
- Pelinski, T. (2022). Sensor mesh as performance interface. *International Conference on New Interfaces for Musical Expression*. (Doctoral consortium) https://doi.org/10.21428/92fbeb44.ce842111
- Pelinski, T., Haki, B., Jordà, S. (2021). Completing Audio Drum Loops with Transformer Neural Networks. *DMRN+16: Digital Musical Research Network One-Day Workshop*. Queen Mary University of London, UK. (Workshop talk) https://qmro.qmul.ac.uk/xmlui/handle/123456789/76887

ORGANISED CONFERENCE WORKSHOPS

- Martin, C. P., Pelinski, T. (2024) Building NIMEs with Embedded AI. *International Conference on New Interfaces for Musical Expression*. Utrecht, Netherlands. https://smcclab.github.io/nime-embedded-ai/
- Jourdan, T., Pelinski, T., Scurto, H. (2024) First-person and second-person perspectives for ML in NIME. *International Conference on New Interfaces for Musical Expression*. Utrecht, Netherlands. https://pelinski.github.io/first-and-second-person-perspectives-ml-nime/
- Armitage, J., Shepardson, V., Privato, N., Pelinski, T., Benito Temprano, A. L., Wolstanholme, L., Martelloni, A., Caspe, F. S., Reed, C. N., Skach, S., Diaz, F., O'Brien S. P., Shier, J. (2023). Agential Instruments Design Workshop. *AI and Music Creativity Conference*. Brighton, UK. https://aimc2023.pubpub.org/pub/25mg4xnz

- Pelinski, T., Shepardson, V., Symons, S., Caspe, F. S., Benito Temprano, A. L., Armitage, J., Kiefer, C., Fiebrink, R., Magnusson, T., & McPherson, A. (2022). Embedded AI for NIME: Challenges and Opportunities. *International Conference on New Interfaces for Musical Expression*. Online. DOI: 10.21428/92fbeb44.ce842111 https://embedded-ai-for-nime.github.io/

SELECTED ARTISTIC RESIDENCIES, RELEASES AND PERFORMANCES

- Sonar+D AI Performance Playground (Barcelona, 2025, upcoming). I have been selected to take part in this AI & Music Hacklab supported by S+T+ARTS, part of Sonar+D 2025. Performance scheduled for 14-06-2025. https://sonar.es/en/activity/ai-performance-playground-live
- Ongoing project with musician Adam Pultz Melbye and their feedback double bass (Berlin, 2024-ongoing), in which we are exploring performing with an ensemble of (real-time) deep learning models, and incorporating them in Adam's feedback instrument. We performed at Embedded Algorithms Workshop held at the Berlin Open Lab, Universität der Kunste, Berlin. https://www.federicovisi.com/videos-from-the-embedding-algorithms-workshop/
- Goldsmiths No Input Ensemble (London, May-June 2024). I was part of the Goldsmiths EMS No Input Ensemble. We released an EP with NX Records https://goldsmithsems.bandcamp.com/album/circuits-1. During the Spring 2023 semester I was also part of the Goldsmiths Laptop Ensemble.
- Muerte En El Parque (London, 2023-2024). I played the melodic synth at the synthpop band Muerte En El Parque. We played a few concerts including at Rally Festival in August 2023.
- Residency at Noods Radio (Bristol, Aug-Dec 2023). Presented and produced Officium, an hour-long monthly radio show on sacred choral music. https://noodsradio.com/residents/officium
- Residency at Phonos Foundation (Barcelona, Oct-Jan 2021/22). Working on "no shell, just a voice", a sound piece and web zine (noshell.teresapelinski.com) on the body in artificially-generated voices. The piece was later released in the Phonos Netlabel and shown at the 7th Music and New Technologies International Festival "Visiones Sonoras" in Michoacán, Mexico, in 2021.

AWARDS

- PhD Studentship (Sep. 2021 - Sep. 2025) - EPSRC UKRI Centre for Doctoral Training in Artificial Intelligence and Music (EP/S022694/1) at Queen Mary University of London. Industrial sponsor: Bela (Augmented Instruments Ltd). Covers tuition, living expenses, travel and research budget.
- Turing Enrichment Scheme placement (Oct. 2023 - June 2024) at The Alan Turing Institute, the UK's national institute for data science and artificial intelligence. Stipend and research grant (£1000).
- Erasmus+ grant (Sep. 2018 - Sep. 2019) monthly stipend for an undergraduate exchange with RTWH Aachen University.
- German Academic Exchange Service (DAAD) stipend for a C1 German course and accommodation at Ludwig Maximilian University of Munich (Aug. 2018) - Hochshulsommerkurse in Deutschland für ausländische Studierende und Graduierte, 2018, 57387787.

LANGUAGES

My native languages are Spanish and Catalan. I have full professional competence in English (Cambridge Certificate of Advanced English awarded in Dec. 2014) and German (Goethe-Zertifikat C1 awarded in Jan. 2020 - official german language certificate). I am also learning French.