William Primett

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Bio

William Primett is a researcher based in Tallinn, Estonia, specialising in Movement Computing and Computational Creativity in the scope of the dance-technology research project, MODINA. Previously, affiliated with the AffecTech consortium supported by the Marie Sklodowska-Curie Innovative Training Network, pursuing the design of wearable technologies for emotional understanding in consideration of mental health disorders. The outcomes of which contributing to their PhD thesis "Non-Verbal Communication with Physiological Sensors: The Aesthetic Domain of Wearables and Neural Networks" (2023), advocating for non-representational biofeedback appropriate for interpersonal dialogue.

Experience

Longterm Positions

*Current position is scheduled until the end February 2025



Postdoctoral Research Fellow

Tallinn University

Sep 2023 - Present

Postdoctoral research for the project Movement, Digital Intelligence and Interactive Audience (MODINA), which aims to expand the creative possibilities for contemporary dance performances, and augment the experience for the audience, using digital technology - with an emphasis on exploring artificial intelligence (AI) and audience interaction, on-site and online. https://modina.eu/



Neva Doctoral Researcher

NOVA School of Science and Technology (FCT NOVA)

Aug 2021 - Feb 2023

Final Year PhD Student at the faculty of Biomedical Engineering, preparing for the thesis defence. Supervision from Professor Hugo Gamboa.



Early Stage Researcher - Affectech PhD Candidate

PLUX Biosignals

Jun 2018 - May 2021

Research towards thesis, "Non-verbal Communication With Physiological Data, The Aesthetic Domain of Biodata and Neural Networks".

R&D Support for BITalino and R-IoT line of biodata focused wearable sensory devices. This included programming, documentation and benchmarking tests for clients and partners from research institutions and creative practices.

Additional Placements



Visiting Researcher

M-ITI Interactive Technologies Institute

May 2019 - Jul 2019

https://movingdigits.eu/technical-workshop/



Visiting Researcher

KTH Royal Institute of Technology

Jan 2019 - Feb 2019

Preliminary research and development into novel actuation systems designed for somaesthetic awareness, initially user-tested during AffecTech biofeedback workshop.

Research Output

Theses

2023 William Primett. (2023). "Non-verbal Communication with Physiological Sensors: The Aesthetic Domain of Biosignals and Neural Networks". Universidade Nova de Lisboa http://hdl.handle.net/10362/153464

Publications

- Nuno N. Correia and William Primett. (2024). "Best Practices for Technology-Mediated Audience Interaction in Dance Performances". In *Proceedings of the 9th International Conference on Movement and Computing (MOCO '24)*. Article 21, 1–6. https://doi.org/10.1145/3658852.3659083
- 2022 Correia, Nuno N et al. (2022). "Designing Interactive Visuals for Dance from Body Maps: Machine Learning and Composite Animation Approaches". In: *Designing Interactive Systems Conference*, pp. 204–216. https://doi.org/10.1145/3532106.3533467.
 - Primett, William et al. (2022). "Sound Feedback for Social Distance: The Case for Public Interventions during a Pandemic". In: *Electronics* 11, p. 2151. https://www.mdpi.com/2079-9292/11/14/2151.
- Jung, Annkatrin et al. (2021). "Exploring awareness of breath- ing through deep touch pressure". In: *Proceedings of the 2021 CHI Conference on Human Factors in Computing Sys- tems*, pp. 1–15. https://dl.acm.org/doi/10.1145/3411764.3445533.
- 2020 Alfaras, Miquel et al. (2020). "Biosensing and actuation: Platforms coupling body input-output modalities for affective technologies". In: *Sensors* 20.21, p. 5968. https://www.mdpi.com/1424-8220/20/21/5968.
- 2019 Masu, Raul et al. (2019). "How do dancers want to use in- teractive technology? Appropriation and layers of meaning beyond traditional movement mapping". In: *Proceedings of the 9th International Conference on Digital and Interactive Arts*, pp. 1–9. url: https://dl.acm.org/doi/10.1145/3359852.3359869.

Technical Contributions

- ServerBIT (r)evolution & ServerBIT MAX Github Link 1, Github Link 2
- Wearable R-IoT kits for unobtrusive ECG, EMG, EDA and Respiration sensing
- R-IoT Wireless latency tests <u>Technical Report</u>

Artistic Works

- Mentorship and technical development for Temporal Spaces, Dance Installation by Max Levy and Cosa Mentale - video
- "Anti-Social Distancing Ensemble" Sound Circuits Festival, November 2021, Lisbon. Interactive Sound Installation - video
- UNLOOP , Oficinas do Convento, Motemor-o-Novo, November 2021, Dance Residency and Performance - video

Education

University Degrees



NOVA School of Science and Technology (FCT NOVA)

Doctor of Philosophy - PhD, Biomedical/Medical Engineering 2018 - 2023



Goldsmiths, University of London

MSci, Creative Computing 2014 - 2018

Additional Experience



Instituto Superior Técnico

Doctoral Exchange Program, Advanced Topics in HCI (6 ECTS) May 2019

Languages

English: Native, Portuguese: A2 (Awaiting examination)

Technical Skills

JavaScript • Embedded C • Wearable Computing • TensorFlow • Python • Node.is • Wireframing • Hardware