SARENNE WALLBRIDGE

Enthusiastic, creative PhD research student. Passionate about combining and augmenting human nature with information technology

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EDUCATION

PhD, Institute of Language, Cognition, and Computation
School of Informatics
University of Edinburgh

📅 September 2020 – 2023 (expected)   📍 Edinburgh, UK

EPSRC-funded studentship focused on multi-modal speech processing.

BSc (Hons) Cognitive Science; 1st Class
School of Informatics
University of Edinburgh

📅 September 2014 – July 2018   📍 Edinburgh, UK

Specialized in Natural Lanuage Processing, Machine Learning, and AI.
- Honours ML/NLP Thesis 'Exploring the Relationship Between Word Form & Meaning' supervised by S. Goldwater. Received a 1st grade.
- Accepted to and completed a full set of MSc courses.

Mechanical and Electrical Engineering
University of Edinburgh

📅 September 2013 – June 2014   📍 Edinburgh, UK

Completed 1st year before realizing I was more passionate about Cognitive Science and transferring my degree.

International Baccalaureate Diploma
International School of Geneva - La Chataigneraie

📅 2011 - 2013   📍 Founex, Switzerland

Higher Levels: Maths, Physics, Economics
Standard Levels: Economics, French, English
- Extended Essay (Physics): 'A' grade.
- Finished in >90th percentile.

EXPERIENCE

PhD Industrial Collaboration
Novoic

📅 July 2020 – September 2020   📍 London, UK

Set up an industrial placement with Novoic's research team prior to starting my PhD.
Novoic leverages the information in human speech as a clinical tool for early detection of neurological and respiratory disease.
- Research into audio-linguistic embeddings for clinical applications.
- Shipped new features in open-source acoustic feature extraction.
- Built API for clinical acoustic and lexical feature research.
- Designed and initialised collection of novel dataset (transcription guidelines, etc).

FORMAL LANGUAGES & LIBRARIES

`Python` `Git` `TensorFlow` `SpaCy` `PyTorch` `NumPy` `SciPy` `Keras` `NLTK` `Pandas` `LaTeX` `Sacred` `Chainer` `MATLAB` `AWS` `Haskell` `Java` `scikit-learn` `Prologue` `UNIX`

NATURAL LANGUAGES

English   ●●●●●
French   ●●●●●

MOST PROUD OF

🎵 **Creativity**
Music has always been an important part of my life, whether listening to records with my dad or playing in jams. I'm proud to have sung in Copenhagen's oldest Jazz club.

🌲 **Persistence**
I love the wilderness and am happiest outdoors ski touring, climbing, or hiking. I'm very proud to have climbed 14 >4000m peaks in the Alps (so far!).

Soft Skills

`Articulate` `Organized` `Creative` `Adaptable` `Team-player` `Persuasive`

TEACHING

MSc-course Tutor
- Accelerated Natural Language Processing

📅 2020   📍 University of Edinburgh

I enjoy leading remote weekly tutorials for 20 MSc students.

BSc-course Tutor & Lab Demonstrator
- Processing Formal and Natural Languages
- Reasoning and Agents

📅 2017 – 2018   📍 University of Edinburgh

Machine Learning Research Engineer
Klydo

📅 September 2019 - July 2020   📍 London, UK

Klydo uses NLP to better understand consumers and drive creative innovation solutions.
- 6th hire!
- Contributed to full ML pipeline (supervised information extraction, semantic embedding, semi/unsupervised clustering)
- Involved in product development/commercialisation (including client meetings), ML-UX interaction, and project planning.

Machine Learning Engineer
Corti

📅 February - September 2019   📍 Copenhagen, Denmark

Corti augments critical conversations in emergency medical services using state-of-the-art ML to enhance dispatchers' decision-making.

I contributed to ML, NLP, and ASR research and product framework as both AGILE project owner and team member.
- Project lead; developed 1st iteration of dialog state tracking feature.
- Contribute to continuous development of multilingual ASR systems. Owned the French ASR development.
- Team member; launched a AI-EMS Triage product. Implemented a host of real-time ML models and contributed to UX design.
- Made significant changes to evaluation & training of time-series models through novel segmentation data augmentation.

Machine Learning Data Engineer
Corti

📅 October 2018 - Februrary 2019   📍 Copenhagen, Denmark

I contributed to ASR/NLU research, and development of our tech stack.
- Refactored components of ML research and production pipelines.
- Analysis into multi-lingual ASR data augmentation, training patterns, and effects of spontaneous speech including source separation.

Edinburgh Fringe Festival: Music Director & Performer
The Blueswater

📅 August 2018 & 2019   📍 Edinburgh, UK

The Blueswater is an Edinburgh-based band + 9 Fringe seasons.

I wrote, arranged, and co-fronted *'Good Morning, Billie!'* (keyboard, vocals) and performed in headline *'Blues!'* (vocals, guitar, narration).
- >75% of *'Good Morning, Billie!'* performances sold out (a huge achievement for a new Fringe show running daily)!
- Performed in >50 gigs throughout the month.

Edinburgh Fringe Festival: Vocalist
The Blueswater

📅 August 2017   📍 Edinburgh, UK

Co-lead vocalist in the headline *'Blues!'* show presenting the history of Blues with a 12-piece band.
- Performed in >30 shows/gigs throughout the Fringe.
- *'Blues!'* was sold out for over 60% of our performances!
- Personal mention in a review of *'Blues!'* (Blues In Britain magazine).

Edinburgh Fringe Festival: Crew
The Blueswater

📅 August 2016   📍 Edinburgh, UK

Machine Learning Intern
Rasa

📅 June – Sept 2017   📍 Berlin, Germany

Rasa produces leading open-source conversational AI framework. I spent 2 months at Rasa's Berlin HQ, continuing remotely.
- NLU entity extraction methods (regexp-based), released on GitHub.
- ML research into anomaly detection for out-of-scope messages.
- Set up a POC project for a new client (AGILE planning).
- Participated in client kick-off meetings, sat in on sales calls, and represented Rasa at events like the Berlin Chatbot Summit.

Undergraduate Research Assistant
University of Edinburgh

📅 May – July 2016   📍 Edinburgh, UK

Edinburgh University is the UK's oldest and largest Informatics research center. Partnering project ESSENCE focuses on human communication abilities in computational systems.
- Assisted ESSENCE Taboo Project - an AI agent to play 'Taboo' against humans. Taboo involves 2 agents: A describes a city without using 'taboo' words, B guesses.
- Implemented a component to validate training data generation in real-time from human games (Python). One challenge was named-entity extraction.

VOLUNTEERING

Lender
Kiva

📅 2012 – ongoing

Kiva is an international non-profile that connects lenders to low-income entrepreneurs and students.
- Have made >40 loans - over $1000

Performer
StreetWork UK, Edinburgh Children's Hospital

📅 2016 – ongoing   📍 Edinburgh

- Performed at 'Blue Christmas' since inception (5 years), a charity event for the Edinburgh Children's Hospital. Last year, we raised >£2'500.
- Performed 3 gigs with my own band; all proceeds went to Streetwork to help break the homelessness cycle.