

Carolyn Saund

Cognition, Machine Learning, & Data Science for Social Good

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I am a recent Computer Science PhD graduate specializing in computational models of behavior, with industry experience in software engineering and team leadership at multiple startups. I am looking for opportunities to conduct and lead client-focused R&D at mission-driven organizations.

Education

Ph.D. Computing Sciences, University of Glasgow, UK 2019–2023
(exp.)

- Supervisors: Stacy Marsella and Mary Ellen Foster.
- **Thesis: Theory-Driven Machine Learning Models for Generating Social Gestures.** [Publications](#) at my website.
- Built projects in **python and R** with a range of deep-learning tools such as **TensorFlow, PyTorch, SciPy/Pandas**, as well as **Google Cloud APIs** and third-party **NLP tools** such as spaCy and WordNet.
- Worked using **mixed-methods** with **high-dimensional data** on **Windows and Linux environments**.

M.Sc. Research Methods of Psychological Sciences, University of Glasgow, UK 2018–2019
Thesis: Interpreting Multiple Metaphors in Metaphoric Gesturing

B.Sc. Computer Science and Cognitive and Brain Sciences, Tufts University, Boston, USA 2011–2015

Experience

Team Lead, Cogito Corp., Boston, USA 2017–2018

- Managed **Agile team** of 10 back-end engineers.
- Oversaw design and implementation of three major user-facing features.
- Worked with small team on back-end architectural migration while maintaining 100% of SLA Uptimes.

Senior Software Engineer, Cogito Corp., Boston, USA 2017

- Designed, implemented, and became Project Owner of CI release pipeline using **Jenkins/GitHub**
- Full-stack **Java** development of role-based user management (RBUM) APIs

Character AI Engineer, Jibo Inc., Boston, USA 2016–2017

- Implemented robot emotion system and corresponding impacts on robot behavior.
- Architected and maintained robot listening interface data pipeline.

Software Engineer, Jibo Inc., Boston, USA 2015–2016

- Architected **Javascript** APIs for developer tools to manage robot sensory inputs.
- Implemented front-end UI and developer interfaces in **React**.

Leadership & Service

Volunteer Data Scientist, DataKind UK 2020–Present

- With small team, designed and performed NLP analysis to extract key variables to augment human decision making finding patterns in human trafficking articles.
- Implemented **RSS Web Scraping** and **Document Classification** to identify and aggregate relevant news articles.

Volunteer Data Analyst, AI for Good 2020–2021

- Scoped and designed mixed-method data analysis for project in collaboration with CareLeavers UK to identify obstacles to success for children leaving government care in the UK.
- Worked on NLP model through Microsoft LUIS system to retrain live chatbots with over 20k users.

Volunteer, STEM Ambassadors UK 2018–Present

- Design STEM learning and collaboration activities and deliver to primary school-aged children, including key **engineering design principles** such as iteration, collaboration, and retrospection.
- Delivered to children age 7-15 as part of school segments or during science exhibition days.

University of Glasgow Department of Neuroscience and Psychology 2018–Present

- **Co-organizer** of [Hack Your Data Beautiful Workshop](#) to create sustainable teaching tools and presentations for programming and data science for non-technical graduate students.
- **Founder & organizer** of social robotics journal club. Recruited membership across four departments.
- **Athena SWAN** student committee member and event organizer.
- Numerous **public outreach** campaigns and events including **3 Minute Thesis**, Pint of Science, **FameLab**, and panels with the Royal Scottish Theater and Glasgow Science Festival.