

# Carolyn Saund

carolynsaund.me

carolyn.saund@gmail.com | +44.759.557.9616

1/1 13 Lawrie Street, G11 5NN, Glasgow, United Kingdom

## EDUCATION

### PHD, COMPUTER SCIENCE

UNIVERSITY OF GLASGOW

Sept 2019 - Jan 2023 (expected) |

Glasgow, UK

### MSC, RESEARCH METHODS IN PSYCHOLOGY

UNIVERSITY OF GLASGOW

Sept 2018 - Sept 2019 |

Glasgow, UK

### BSC, COMPUTER SCIENCE, BRAIN AND COGNITIVE SCIENCE

TUFTS UNIVERSITY

May 2015 | Somerville, MA

## CORE SKILLS

### ANALYSIS

Deep Learning/Neural Networks

R & RStudio

Matlab

Bayesian Statistics

Experimental Design

Qualitative Methods

Network Analysis

### WORKFLOW/Frameworks

Git/Github

React

NodeJS

SciPy/Pandas

Scikit-Learn

PyTorch

TensorFlow

Google Cloud

Theano

Mechanical Turk/Prolific

Agile Development

## LANGUAGES

### PROFICIENT

R • Python •

Javascript/Typescript • C • C++

### FAMILIAR

LISP • CSS • HTTP • Java

## RESEARCH

### PHD, COMPUTER SCIENCE

Sept 2019 - Jan 2023 (Expected) | Dept. of Neuroscience and Psychology,

Dept. of Computing Science

Supervisors: Stacy Marsella, Mary Ellen Foster

- Cognitive analysis of social metaphoric gestures. Motion capture, movement analysis, and mapping of movements onto spoken semantics to form a generative model of social gestures for virtual agents.
- C. Saund and S. Marsella. Cross-cultural transferability of metaphoric gestures. *in review*.
- C. Saund, I. Poljak and S. Marsella. The influence of gesture on memory recall: why random gesturing for virtual agents is a bad idea. *in prep*.

### MSC, RESEARCH METHODS IN PSYCHOLOGICAL SCIENCE

Sept 2018 - Sept 2019 | University of Glasgow

Supervisor: Stacy Marsella

- Analysis of complex metaphoric gestures and the mapping between movement dynamics and semantic interpretation.
- C. Saund, M. Roth, M. Chollet, and S. Marsella. Metaphor and Metaphoric Gesturing .InProceedings of the 2019 8th International Conference on Affective Computing and Intelligent Interaction (ACII) - Volume 1, ACII '19, 2019. Institute of Electrical and Electronics Engineers.

## WORK EXPERIENCE

### COGITO

#### PLATFORM TEAM LEAD

Jan 2018 - August 2018 | Boston MA

- Managed Agile team of 10 engineers
- Oversaw top-to-bottom implementation of three major user-facing features

#### SENIOR SOFTWARE ENGINEER

August 2017 - Jan 2018 | Boston MA

- Originally Implemented and manage release pipeline.
- Full-stack development of Role-Based User Management (RBUM) APIs.

### JIBO

#### ROBOT SDK ENGINEER

May 2015 - Dec 2016 | Boston, MA

- Architected data APIs for dev tools to manage robot sensory input from cameras and microphones.
- Implemented frontend UI and developer interfaces to build high-level skills.

#### CHARACTER AI ENGINEER

Jan 2017 - August 2017 | Boston, MA

- Designed and implemented robotic bi-axial Emotion System and corresponding impacts on robot behavior.
- Single-handedly architected and maintained robot listening pipeline (main interface for interaction).

#### SOFTWARE CONSULTANT

August 2017 - December 2017 | Boston, MA

## AWARDS

- School of Science and Engineering Mobility Scholarship, 2020
- Nuffield Exemplary Project Mentor, 2019
- Inaugural Company Culture award for “outstanding cultural contributions,” at Jibo, 2017

## WORKSHOPS ATTENDED

### **FORMAL MODELS AND BAYESIAN ANALYSIS | TQUANT: TOOLS FOR QUANTITATIVE THINKING**

March 2019 | Balatonföldvár, Hungary

- Instructed in quantitative techniques such as Bayesian analysis, copula theory, and formal probability theory.
- With team of four, developed RShiny app as teaching tool to visualize logistic regression.

### **ARTS & AI AUTUMN SESSION | GOETHE INSTITUT**

September 2019 | Glasgow, UK

- Meeting of artists and AI researchers on techniques to use machine learning to create visual art.
- Technical and creative idea exchange on portrayals of AI ethics to foster productive public discourse.
- Collaborated with visual artists to create “one-person crowd” sourced datasets.

### **3D DATA VISUALIZATION | BEYOND CONF**

October 2019 | Edinburgh, UK

- Introduction to mathematics and tools to visualize high-dimensional data.

### **SOCIAL MEDIA AS DATA COLLECTION | SCOTTISH GRADUATE STUDENTS IN SOCIAL SCIENCES**

Jan 2020 | Glasgow, UK

- Scraped data from Facebook, Twitter, Wikipedia, and Quora using public developer APIs.
- Used network visualization and analysis techniques to infer causal links between social phenomena.
- Discussed ethical usage of publicly available web-based data.

## PUBLIC ENGAGEMENT

### **DEPARTMENT AND UNIVERSITY SERVICE**

- Bi-Weekly Social Robotics Journal Club | **Organizer**
- Hack Your Data Beautiful Week-Long Workshop | **Co-Organizer and Presenter**
- Athena SWAN Gender Equity Task Force | **Committee Member**
- Monthly GLA Reading Minds Book Club | **Co-Organizer**

### **COMMUNITY TALKS**

- Glasgow Science Festival on Ethics of the Development of Conscious AI | **Invited Speaker**
- Pint of Science, A Mad Introduction to Social Robotics | **Presenter**
- Royal Theatre of Scotland Public Session on Portrayal of AI in Theatrical Media | **Invited Speaker**
- Glasgow Film Society Sci-Fi Series for AI and Consciousness | **Invited Speaker**
- STEM Ambassador | **Volunteer & Activity Organizer**

## OTHER LEADERSHIP AND COMMUNITY SERVICE

### **ACTIVE**

- Student Representative Council
- Glasgow Ultimate Club Women's Captain
- University of Glasgow Ultimate Frisbee Fitness Secretary
- University of Glasgow Mountaineering Society Trip Leader

### **PAST**

- Girl Guiding Volunteer, 2018-2019
- Resilient Coder's Company Sponsor, 2017-2018
- Cambridge Inventor's Club Co-Organizer, 2016-2018
- Women in Computer Science University Chapter President, 2013-2015