

## EDUCATION

### PHD IN COMPUTING SCIENCE

UNIVERSITY OF GLASGOW | Jan 2021 – April 2024 | Glasgow, Scotland

- Multidisciplinary research in human-computer interaction (HCI), machine learning, and signal processing, with a focus on interaction design using novel sensing hardware.
- Funded by Google's Advanced Technology and Projects Group (ATAP).
- [Thesis Link](#).

### BSC (HONS) IN COMPUTING SCIENCE (2:1)

UNIVERSITY OF GLASGOW | Sep 2017 – Jun 2020 | Glasgow, Scotland

## RESEARCH PROJECTS

*PhD research focused on developing novel systems for gesture-based interactions. It emphasized designing socially acceptable interaction techniques to enhance user experience with smart devices, achieved through technical prototypes and comprehensive UX research methodologies.*

### INTERACTION DESIGN AND EVALUATION

UNIVERSITY OF GLASGOW | Jan 2021 – Sep 2024 | Glasgow, Scotland

- Developed interactive systems, progressing from wireframes and sketches to fully implemented prototypes.
- Designed and conducted pilot studies and ethics-approved controlled user studies, incorporating think-aloud protocols, task analysis, post-study interviews, and questionnaires to evaluate usability and user preferences.
- Conducted 'in the wild' studies to derive actionable insights, focusing on task performance, user comfort and social acceptability in public interactions.
- Performed qualitative and quantitative statistical analyses on data gathered from user studies to validate hypotheses and inform system improvements.

### GESTURE RECOGNITION

UNIVERSITY OF GLASGOW | Sep 2022 – Feb 2024 | Glasgow, Scotland

- Formulated and executed data collection protocols using various gesture-sensing hardware (e.g., data gloves, miniature radars, depth cameras).
- Developed new datasets for Google's proprietary sensors through systematic data collection with participants.
- Engineered novel real-time gesture recognition systems using deep learning and signal processing.

## OTHER EXPERIENCE

### TUTOR

UNIVERSITY OF GLASGOW | Jan 2022 – Present | Glasgow, Scotland

- Delivered tutoring sessions and assessed coursework for undergraduate and master's courses, including Deep Learning, Robotics, HCI, and Cybersecurity.

### INTERNSHIPS

SCOTSBRIDGE HOLDINGS | Jun 2019 – Aug 2019 | Glasgow, Scotland

- Redesigned and implemented the company website.
- Developed a regression-based machine learning model to forecast building prices in Glasgow, adopted by company directors for strategic business decisions.

ROYAL SOCIETY FOR THE PROTECTION OF BIRDS | Sep 2018 – May 2019 | Glasgow, Scotland

- Developed an Android app for public bird sightings, enabling data collection for species population tracking.
- Followed agile software development practices, including Scrum methodologies.

FARMCHIMP | Jun 2018 – Aug 2018 | Dubai, U.A.E

- Developed an interactive augmented reality iOS app using 3D models, animations, and tracking.

## SKILLS

### RESEARCH

Controlled experiments • User studies • UX research • Surveys • Interviews • Statistical data analysis

### PROGRAMMING LANGUAGES

Python • R • C++ • Swift • Java • Javascript, HTML • CSS • BASH • LaTeX

### LIBRARIES

NumPy • Pandas • Scikit • SciPy • Matplotlib • Seaborn • TensorFlow • PyTorch • Keras • Statsmodels • Jupyter

### SOFT SKILLS

Team Player • Critical Thinking • Public Speaking

## AWARDS

**Three-Minute Thesis Competition Finalist** | For presenting innovative PhD research effectively | University of Glasgow | 2024

**Soli Research Funding** | PhD funding from Google ATAP to conduct research using proprietary radar sensors | Google ATAP | 2021

**Postgraduate Research Excellence Bursary** | For potential in computer science research | University of Glasgow | 2020

**International Academic Excellence Scholarship** | For exceptional undergraduate academic performance | University of Glasgow | 2018

**Top Student Medal in Computing** | For topping year 1 Computing Science | 2017

## INTERESTS

Travelling • Fitness • Nutrition

## REFERENCES

**Prof. Roderick Murray-Smith**, Professor of Computing Science, University of Glasgow | Primary Supervisor | roderick.murray-smith@glasgow.ac.uk

**Dr. Chaitanya Kaul**, Research Fellow, University of Glasgow | Secondary Supervisor | chaitanya.kaul@glasgow.ac.uk