Susana Roman Garcia

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Summary

With seven years of experience in healthcare consultancy and currently completing a PhD, I am passionate about bridging diverse perspectives to drive community-driven scientific progress.

- Proven aptitude for working with different communities and bringing people together.
- Demonstrated capability designing, collecting, analyzing and communicating scientific research
- Fluent in multiple programming languages (Python, R, XML, SQL, Markdown).
- Extensive experience working with platforms such as GitHub, GitLab, Jupyter Notebooks, Quarto, Slack.

Work Experience and Community Projects

Executive Assistant, Health Information Consulting Ltd   (Part-time) Sep 2017 – Ongoing

- Managing Operations and Quality Analysis support for the English NHS diabetic system GP2DRS.
- Experience using sensitive health data from +3.9 million patients with diabetes across England.
- Handling and organizing patient data according to governance requirements.
- Upkeeping monthly standard operational procedures, refining and improving GP2DRS procedure documentation.

The Turing Way (TTW) Collaborations   May 2023 - Ongoing

- Contributed to the TTW book; co-authoring the Data Hazards chapter, collaborating internally and externally within the Turing Institute and different universities.
- Member of the Book Dash Planning Committee and Working Group, contributing to documentation, training and evaluation events' feedback.
- Co-facilitated TTW presentations and contributed to resource development.
- Conducting onboarding calls with new TTW members to familiarize and welcome them to the project.

Community Champion, Enrichment Scheme, Alan Turing Institute   Oct 2022 – Jun 2023

- Created a welcoming and open environment and acted as a touchstone for students to reach for guidance and advice. Organized team-building events connecting students and researchers within the Turing Community.
- Collaborated with TTW, Academic Services, Skills and TPS teams, University Networks to inform and guide students.

Co-Organizer, Data Hazards, Ethics & Reproducibility Symposium, Alan Turing Institute   Dec 2022 – Mar 2023

- Designed, co-organized and co-led a one-day, hybrid symposium to foster discussions on embedding responsibility and ethics across different fields.
- Recruited and lead a team of volunteers for hosting sessions, catering, and managing tasks.
- Created an EDI compliant, accessible event through collaboration and engagement with many teams across the Turing community, such as Skills and Facilities.
- Collected feedback and identified improvements for Grassroots documentation and application process, leading to revisions in documentation for future applicants.

Facilitator, Climate Cafés, Climate Psychology Alliance   Jan 2021 – Jan 2023

- Organised and facilitated events providing a safe space for talking about uncertainties about our ecological crisis.
- Experience dealing with varied communities globally to have difficult conversations, providing a nurturing and welcoming environment.

Relevant Training

Open Seeds (formerly _Open Life Sciences_) Cohort 6   **Sep 2022 – Jan 2023**

- Worked on a project titled "Ethical Standards and Reproducibility of computer models in Neurobiology".

- Gained experience tooling and road-mapping for open projects such as licensing and creating contribution guidelines.

- Applied best practices for open science, project management, data sharing and community engagement.

- Skills in creating inclusive community designs, prioritizing diversity, inclusion, and allyship in project planning.

AI Ethics and Governance Training, Turing Commons, Alan Turing Institute   **Nov 2022**

- Addressed AI-related issues like bias, discrimination, digital divides, and strategies for bias mitigation.

- Explored governance frameworks to ensure accountability and auditability in AI systems throughout their lifecycle.

- Explored AI modelling with transparency and explainability, and applying CARE & ACT principles.

- Obtained insight into conducting stakeholder engagement processes and impact assessments for AI projects.

Research Software Engineering with Python Training, REG team, Alan Turing Institute   **Oct 2022**

- Gained confidence in recording, structuring and showcasing data using reproducible python workflows.

- Improved version control skills through both independent work and collaborative projects.

- Developed knowledge in utilizing various libraries, managing dependencies, and configuring environments.

- Attained practical experience in unit testing, debugging, and efficient programming techniques.

Foundational Community Building and Engagement Training, The Turing Way   **July 2022 – Aug 2022**

- Exploring community engagement strategies, stakeholder mapping, documentation, and communication channels.

- Learned about creating community foundations and roles from peers in the training.

- Gained insights on applying local knowledge to build open, equitable, participatory, and sustainable communities.

Education

Computational Neuroscience and Ethics PhD   **Oct 2020–Expected Sep 2024**
University of Edinburgh
  o _Computer models of CaMKII interactions in the postsynaptic neuron to understand learning and memory._
- Created reproducible pipeline for Python and MCell models to study neuronal protein dynamics.

- Emphasis on challenging ethical research norms in computational neuroscience.

- Designed a FAIR-compliant PhD, with ethics and reproducibility as key-themes of the thesis discussion.

- GitHub Workshop Organizer and carpentries workshops attendee on Git and Version Control.

Neuroinformatics MSc (2.1 Honours)   **Oct 2018 – Sep 2019**
  Newcastle University
  o _Title: Learning hierarchical structures of spatiotemporal neural dynamics in long-term EEG recordings in epilepsy_
    - Class Representative
    - Computing Environments for Bioinformatics
    - Computational Analysis of Complex Biological Systems
    - Computing Foundations of Data Science

Neuroscience BSc (2.1 Honours)   **Sep 2013 – May 2017**
  University of Edinburgh
  o _Title: Computational modelling and simulation of the interaction between NMDA receptors and CaMKII in the postsynaptic neuron._
    - Class Representative
    - Science Communication
    - Neuroscience Project Management
    - Edinburgh Awards for outstanding performance

Contributions and Publications

- **Data Hazards as an ethical toolkit for neuroscience.** Roman Garcia, S., Welsh, C., Di Cara, N. H., Sterratt, D., Romano, N., & Stefan, M. I. (2024). https://doi.org/10.31219/osf.io/yn2j9

- **Open Science & Reproducibility: The Turing Way Workshop.** Roman Garcia, & Steele. (2023). Open Science & Reproducibility: The Turing Way Workshop. https://doi.org/10.5281/zenodo.7704563

- **Data Hazards v1.0: an open-source vocabulary of ethical hazards for data-intensive projects.** Kuwertz E., Zelenka N., Hanschke V., Di Cara N., Bennet E., Kherroubi Garcia I., Roman Garcia, S., (2023). https://doi.org/10.31219/osf.io/hzmyp

- **Data Hazards Chapter Contribution** (2024), The Turing Way Community. The Turing Way: A handbook for reproducible, ethical and collaborative research. Zenodo. https://doi:10.5281/zenodo.3233853

- **Enrichment scheme reflections. Women in High Performance Computing.** Roman Garcia, S. (2023). Retrieved from https://womeninhpc.org/paths-to-hpc/enrichment-scheme-reflections-the-alan-turing-institute on May 18, 2024.

- **Bias-and-Reproducibility-Poster: Bias and reproducibility in a computational neurobiology PhD's journey.** Roman Garcia, S., Sharan, M., Fischer, C., David Sterratt, Nicola Romano, Melanie Stefan., (2022). Presented at The 21st International Conference on Systems Biology (ICSB 2022) [Poster GitHub Repo] https://github.com/Susana465/Bias-and-Reproducibility-Poster

- **What Data Hazards apply to my PhD? A Data Hazards Case Study** [Poster GitHub Repo], Roman Garcia, S., (2022). https://github.com/Susana465/DH_Project_CaseStudy

- **Data Hazards Workshops** [Materials GitHub Repo]. Roman Garcia, S., Stefan, M., Hanschke, V., Di Cara, N., & Zelenka, N. (2022). https://github.com/Susana465/Data_Hazards_workshops

- **Thinking about Ethics in (Computer) Science, Edinburgh College of Medicine and Veterinary Medicine Good Practice Showcase.** Roman Garcia, S., Sterratt, D., & Stefan, M. I.(2022). https://doi.org/10.5281/zenodo.6973796

Scholarships and Awards

- **Full PhD Scholarship** (2020/2024). Funded by Medical Research Scotland (~120 000£).

- **Grassroots Funding Awardee** (2023). Alan Turing Institute (£1000).

- **Enrichment Scheme Placement Award** (2022/2023) . Nine months research visit at the Alan Turing Institute (£3000).

- **Short listed for Equality, Diversity and Inclusion Award** (2022). Staff Recognition Awards, College of Medicine & Veterinary Medicine, University of Edinburgh.

- **Edinburgh Award** (2015/2017), for outstanding performance above the official curriculum by completing a total of +180 hours of training for extracurricular activities such as part-time work, class representative, and peer mentoring.