Tel: 07528843417   70A Christchurch Rd
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                                                             SW2 3DE

Skills

Python	SQL	Survey data
Numpy/SciPy/Pandas	R	Javascript
IPython	Simulation	LaTeX
Java	Agent-based modelling	Version control
HPC	Statistics	Machine learning

Education

2012-current
PhD Complex Systems Simulation, University of Southampton, Southampton
2009-2012
BSc Computer Science with Artificial Intelligence (1st), City University, London

Experience

2010-current
Teaching Assistant, University of Southampton

Worked as a teaching assistant on both introductory statistics, and Python courses, supporting undergraduate's learning.

2010-2012
Technical Support, Communications International Group (Part-time)

Supported day-to-day operations at a busy publisher by troubleshooting PC/OSX and hardware issues; managing Server 2003/Exchange system, and liaising with third-party contractors/suppliers. Delivered integrated OSX/Windows login system, WiFi installation, deskside user training, onsite backup solution, and developed an in house expenses reporting tool using Python/Django.

Software

flow-do
An experimental dependency based todo list/project planning tool, inspired by Sankey diagrams, written in Javascript/HTML.
https://github.com/greenape/flow-do

GEM Utils

A small collection of python utilities for working with the Gaussian emulation machines, and interfacing with FORTRAN95 emulators.
https://github.com/greenape/gem-module

PBS-Bullet
A python module for monitoring, reporting, and control of code runs in HPC environments, with Pushbullet integration.
https://github.com/greenape/pbs_bullet

SSCC Temporal Difference Simulator
A Java simulator for the extended Temporal Difference model of associative conditioning, with GUI.
https://github.com/cal-r/sscctd

Temporal Difference Simulator
A Java simulator for the Temporal Difference model of associative conditioning, with GUI.
https://github.com/cal-r/td

Publications

J Gray , J Bijak, S Bullock. Deciding to Disclose: A Decision Theoretic Agent Model of Pregnancy and Alcohol Misuse. In J. V an Bavel & A. Grow (Eds.), Agent-based modeling in population studies: Concepts, methods, and applications. Dordrecht: Springer. (Forthcoming)

E Mondragón, J Gray , E Alonso, C Bonardi, D Jennings. SSCC TD: A Serial and Simultaneous Configural-Cue Compound Stimuli Representation for Temporal Difference Learning. PLoS ONE 9 (7), e102469

E Mondragón, J Gray , E Alonso. A complete serial compound temporal difference simulator for compound stimuli, configural cues and context representation. Neuroinformatics 11 (2), 259-261

E Mondragón, E Alonso, A Fernández, J Gray . An extension of the Rescorla and Wagner Simulator for context conditioning. Computer methods and programs in biomedicine 110 (2), 226-230

Talks

2015
The Risky Business of Asking for Help: an ABM of unmet need in older adults (BSPS, SCCS) (https://www.youtube.com/watch?v=b0hZUPGmj48)
Deciding to Disclose: Pregnancy & Alcohol Misuse (IC2S2)

2014
Decision Making in ABM: Agents with Agency (MPIDR Rostock, invited talk)
Deciding to Disclose: Pregnancy & Alcohol Misuse (SCCS)

Interests

Interests include juggling, origami, cycling, volunteering, baking, and occasional extreme sports (performed a 13,000' solo skydive; raising £750 for Marie Curie Cancer Care).
I am also interested in software development – for example, in 2009 I developed BikeRoute, a GPL'd bicycle navigation app for the Android mobile platform developed in Java and using PHP to interact with third party APIs, which, although now defunct, reached 37.5K users. I am also an occasional participant in Kaggle contests, primarily to explore applying Deep Learning techniques to large datasets, and enjoy exploring new programming languages.

References

Available on request.