GREG LONDISH

4/21 Warringah Rd, Mosman NSW 2088
0434 630 765
glondish@outlook.com
www.glondish.com

PROFICIENCIES

Machine Learning, AI and Statistics

Implemented a wide range of AI and statistical techniques as part of work and personal projects. Such techniques include:

- Sequential Monte Carlo methods for generating posterior distributions
- Markov Chain Monte Carlo methods for min-maxing utility trees
- Various types of neural networks for classification and clustering
- Cross-plots for the visualisation of multi-dimensional variable spaces

Programming Languages and Mathematical Software

Strong working knowledge of C++, Python and C#, particularly when it comes to performant programming and implementing AI algorithms. Past experience with Java and Fortran.

Used Matlab and Mathematica extensively for much of early work. On occasion, also used other programs/libraries, such as R and matplotlib, for visualisation or data processing.

Familiar with the various parts of web development, e.g. Javascript and PHP, having run my own servers for personal use.

PREVIOIUS EMPLOYMENT

Kitfox Games

Co-Founder & Programmer **2013**

Part of the founding team and programmer for Kitfox Games' first game *Shattered Planet*. Primarily responsible for the procedural content generation of the randomised maps, AI controlling the non-player agents and pathfinding algorithm.

Outside of programming, helped plan finances and overall strategy as well as give presentations about the studio to potential investors.

Self-employed

Independent Games Developer **2010 - 2012**

Developed games by myself, taking the responsibilities of designer and programmer and using open-source or commercially available art assets.

Helped other developers pro bono with programming problems, particularly with regards to physics engines and implementing efficient AI.

Data Visualisation and Analysis

Co-Founder **2007 - 2011**

Began developing ML systems for predicting likelihood of Alzheimer's Disease in patients from voxel data from fMRI scans using principal component analysis and support vector machines.

Used Python, wxPython and VTK to produce visualisations of voxel data and highlight the regions related to the possibility of Alzheimer's.

GREG LONDISH

4/21 Warringah Rd, Mosman NSW 2088
0434 630 765
glondish@outlook.com
www.glondish.com

National Centre for HIV Epidemiology and Clinical Research
Research Assistant **2009-2010**
Wrote programs in C++, Python, Mathematica and Matlab to simulate HPV epidemics in Australia on a networked supercomputing platform.

Developed and wrote the code for novel algorithms to efficiently calibrate models to experimental data.

Worked as part of an extended team of epidemiologists and mathematicians from universities and pharmaceutical companies around Australia.

Presented the results from the simulations at conferences and also wrote papers for submission to research journals.

St Clement's Anglican Church, Mosman
Youth Minister **2009-2010**
Organised and ran the local youth group Friday and Sunday activities, camps and outings.

Led and trained the team of volunteers, who helped run and teach at youth events.

During school holidays, prepared and gave sermons, including PowerPoint slides at the four congregations on Sundays.

University of New South Wales/ University of Sydney
Teaching Assistant - Mathematics & Physics **2002-2008**
Taught first and second year university level mathematics & physics in a classroom environment to approximately 40 students at a time.

Ran demonstrations and taught students in physics laboratory sessions.

EDUCATION

University of New South Wales
PhD in Applied Mathematics (Discontinued) **2006-2009**
Wrote programs in C++, Python, Fortran and Matlab to simulate HIV epidemics and performed statistical analysis on the outcomes under different scenarios.

Converted information from epidemiological and medical research articles into simplified mathematical models that were then input into computer simulations.

Presented the results from the simulations before audiences at conferences and workshops as well as wrote papers for submission to research journals.

Collaborated with epidemiologists and mathematicians to create accurate models and produce research papers.

GREG LONDISH

4/21 Warringah Rd, Mosman NSW 2088
0434 630 765
glondish@outlook.com
www.glondish.com

University of Sydney
Bachelor of Science (Honours in Advanced Mathematics) **2002-2005**
University Medal in Applied Mathematics.

Honours thesis on creating formulae for pricing executive stock options.

Developed computer programs in Matlab to find numerical solutions for more complicated options and to calculate their effective value to executives.

VOLUNTEER EXPERIENCE

State Emergency Service, New South Wales, Australia
Rescue Team Member **2007-2009**
Rescue team member for flood and storm emergencies and assisted other agencies in rescue operations. Trained in first aid, equipment care and maintenance, and how to cut up a huge tree with chainsaws.