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Education

MS Electrical Engineering, BS Psychology, BS Computer Science
Portland State University (3.87 GPA), Reed College, Cornell University, Boston University,
Rangjung Yeshe Institute, Rigpa Shedra, Maitripa College, Yoga Chakra School

Experience

- Various** Psygraph, Halio, Wonderwell, Upaya 2013-2019
- Created a cross-platform meditation app (Psygraph) for Android and IOS
 - Wrote a data-gathering plugin for WordPress
 - Taught JavaScript programming to high school students in Thailand
 - Served as a retreat manager and volunteer at several Buddhist retreat centers
 - Currently writing and theorizing about mind and kindness
- Team Lead, System Objects** The MathWorks 2011 - 2012
- Technical lead, System Objects Infrastructure (a team of four developers).
 - Responsible for release planning, inter-team coordination, etc.
- DSP & Computer Vision Engineer** The MathWorks 2006 - 2011
- Created AudioPlayer/AudioRecorder Simulink blocks and System objects.
 - UDP Send/Receive blocks (using the Boost ASIO library).
 - Authored the DirectShow architecture used by the To/FromMultimediaFile and Video Device blocks.
 - Implemented USRP2 blocks to enable Software Defined Radio for the Communications blockset.
- Scientific Data Formats Developer** The MathWorks 2003 - 2006
- Created an interface to the HDF5 file format (the basis of the v7.3 MAT file format).
 - Upgraded a large number of image processing libraries (JPEG, TIFF, etc).
 - Provided technical support to customers, engaged in extensive training with MathWorks products
- Software Engineer** Kumulipo, Inc. 2001 - 2002
- Ported Jasmine™ audio software to MacOS X (from MacOS 8/9), using QuickTime.
 - Implemented a phase vocoder algorithm to shift the length/pitch of digital audio recordings (using a short-time FFT).
- Academic Researcher** NW Computational Intelligence Lab 2000 - 2001
- Developed fuzzy logic and neural network controllers for non-linear plants.
 - Researched control methods using the Dual Heuristic Programming paradigm.
 - Wrote a paper for an international fuzzy logic conference (IFSA/NAFIPS).
- Computer Programmer** ArborRhythms 1994 – 1997
- Learned C++, Windows API to write and bring a musical shareware product to market.
 - Worked extensively with MIDI, WAV, AIFF and AU file formats.

Skills & Interests

Programming Languages: Proficient at C++, C, MATLAB, Java, Microsoft (COM, DirectShow, Win32 API), JavaScript, XML, HTML, UML, Perl, PHP, assembly (x86, TI TMS 320 C3X) on Windows, MacOS, Linux, Android, and IOS.

Psychology: Artificial intelligence (neuronal and cognitive modeling using linear and non-linear models), biofeedback, behavioral conditioning, Buddhist psychology.

Audio: Extensive audio programming and signal processing experience, running soundboards and PA systems (on a volunteer basis).

Publications and Presentations

Alec Rogers, *Mathematics of Enlightenment*, a poster session presented at the 2014 Mind and Life Conference in Boston, MA.

Alec Rogers, *Cognitive Set Theory*, April 2012.

Alec Rogers, T. Shannon & G. Lendaris, *A Comparison of DHP Based Antecedent Parameter Tuning Strategies for Fuzzy Control*, IFSA/NAFIPS Conference, Vancouver, B.C., July, 2001.

George Lendaris, T. Shannon, L. Schultz, S. Hutsell & A. Rogers, *Dual Heuristic Programming for Fuzzy Control*, IFSA/NAFIPS Conference, Vancouver, B.C., July, 2001.

References

Available on request.