

Tamara Blain

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Objective

I am looking for a challenging opportunity to apply my proven programming experience, and my multi-disciplinary approach to innovative problem solving for the advancement of Brain Computer Interfaces.

Summary of Qualifications

- 4 years of hardware design experience
- Educational background in both Computer Science and Electrical Engineering
- Extensive familiarity with a startup environment
- Experience with EEG and MEG brain imaging systems, and implementation of an EEG-based Brain Computer Interface
- Extensive research project experience involving Brain Computer Interfaces, including an implementation of a BCI-controlled communication system for Master's Thesis

Education

M.S. E.E., UC Berkeley, Berkeley CA, December 2009

B.S. C.S., CUNY Queens College, New York NY, May 2003

B.S. Biochemistry, SUNY StonyBrook, StonyBrook NY, May 1995

Relevant Experience

Consulting Software Engineer, 7/2010 – Present

Mimvi, Inc., San Francisco, CA

- Assist the Engineering team in the design and implementation of the back and front ends of a search and recommendation engine.
- Facilitate the research and development of data mining and machine learning algorithms.

Computer Science Teacher, 6/2010 – 7/2010

Upward Bound Math and Science, UC Berkeley, CA

- Facilitated classes of high school students participating in a summer college prep program.
- Designed and implemented a curriculum centered on computer architecture, web technologies, and programming.

Research Assistant, 7/2003 – 12/2006

Lawrence Berkeley National Labs, Berkeley, CA

- Assisted the group that developed the front-end system of the Spallation Neutron Source (SNS), which provides pulse neutron beams used to determine the atomic make-up of materials.
- Designed modules in C that enabled additional functionality to the FPGA emulating the SoC controller of the RF-based acceleration system, allowing greater flexibility and control to SNS users.
- Verified designs, ensuring correctness and functionality.

UC Berkeley Student Projects

- A BCI-Controlled Virtual Keyboard Design for Noisy Input and Limited Bandwidth
Designed and simulated a method of communicating over a brain-computer-interface (BCI) constrained by noise and bandwidth; Master's report.
- Fast MAPs BCI-controlled Smart Wheelchair Interface
Extended an approach to shared BCI-control of a robotic wheelchair, centered around the SLAM algorithm and a maps-based interface; class project.
- EEG-based Brain Computer Interface (BCI) Controlled Communication Devices
Assembled and integrated requisite components of an EEG-based brain computer interface to control a virtual keyboard; research project.
- Extra-Cortical Self-Repositioning MEMs-Based EcoG
Proposed a system for recording electrical activity from the surface of the cerebral cortex using a wireless electrode array with RF power scavenging ability and a self-repositioning mechanism; class project.

Web Developer, 6/1999 – 9/2002

Concrete Media Inc., New York, NY

- Developed websites and intranets for such large companies as, Bertelsmann AG, The Princeton Review, and ScreamingMedia.
- Developed large-scale portal sites such as GirlsOn.com, Lids.com, Bolt.com, and Homeroom.com.
- Ensured unerring code performance with all browser engines.
- Initiated and created a centralized system, which improved site development efficiency and enhanced developer collaboration.
- Stimulated the interest of new clients by producing presentations of cutting edge client-side technologies, to be delivered by the marketing team.
- Surveyed web trends and technologies for opportunities to improve client websites
- Interviewed prospective developers, ensuring their quality, capabilities, and culture-fitness.

Technical Expertise

Programming Languages

Proficient: Python, C++, Matlab, Verilog

Knowledgeable: HTML, JavaScript, Actionscript, SQL, ASP, Java, R, C, VHDL, x86 assembly, ARM IS

ASIC/FPGAs

Knowledgeable: Xilinx, Altera

Systems

Proficient: Linux, Windows, Mac OSX

Version Control

Proficient: CVS, GIT

Knowledgeable: SVN

Interests

Programming, Developing for Mobile Devices, Machine Learning, and Computer Architecture