

• Kristi Tsukida •

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Objective

Full-time position developing cool stuff with smart people at an innovative tech company.

Skills

Programming, problem-solving, engineering, machine learning, critical thinking, communication

Languages: Matlab, Bash/Linux scripting, Python, HTML, CSS, Javascript, C/C++, Git/SVN/CVS

Technologies: object oriented programming, automated scripting, data mining, microcontroller firmware and circuits, PCB layout, parallel GPU programming, wireless communication, audio and video processing, Linux servers, Django, Photoshop, Illustrator

Projects: taikonome.com (an online taiko metronome), mrglmrgl.com (a code snippet Django app) inochitaiko.com (Inochi Taiko website)

Experience

Machine Learning Researcher at *Information Design Lab, Univ. of Washington*, Jan 2010 - Jan 2012

- Analyzed scoring and ranking based on paired comparison data using maximum likelihood and convex optimization (Matlab)
- Chip-seq tag location algorithm for inferring precise protein binding locations in DNA (Python)
- Data preprocessing and cleaning, cross-validation, statistical data modeling
- Sysadmin for internal Linux computer cluster

Electrical Engineer and Software Developer at *Intellisys Corp.*, Sept 2007 - Aug 2009

- Rewrote the core neural simulation processing algorithm (C/Nvidia CUDA GPU) to boost processing speed over 2x
- Integrated voice commands using CMU Sphinx (C), webcam capture and processing using OpenCV (C++), video preprocessing, and proximity sensor collision prevention for control of autonomous embodied robot over wireless network
- Patent US20110119057: Neural segmentation of an input signal and applications thereof

Electrical Engineer and Software Developer at *the California Institute for Telecommunication and Information Technology (Calit2)*, Sept 2006 - Sept 2007

- Enabled modular sensor input, motor control, and wireless control for a robotic platform by designing custom AVR microcontroller circuit board (Eagle PCB), firmware (C), and API
- Developed remote control protocol and interfaces for cell phone (Bluetooth) and computer (802.11 wireless)
- Worked on motor control system and interface for a high resolution multi-spectral art scanner

Programmer at *San Diego Supercomputer Center (SDSC)*, Sept 2004 - June 2006

- Wrote scripts to automate management of a distributed network of servers
- Setup and maintained SVN server
- Led student team and documented procedures

Education

M.S. Electrical Engineering, Dec 2011
University of Washington, Seattle
GPA 3.8

B.S. Electrical Engineering, June 2007
University of California, San Diego
Regents Scholar, Provost's Honors
Major GPA 3.8, Overall GPA 3.6

Miscellaneous

- Performed Taiko drumming for 2009 World Baseball Classic (Naruwan Taiko) and 2011 Taiko Jam concert at the National Taiko Conference (Inochi Taiko)
- Aspiring rock climber (V3 bouldering), boomerang thrower (and occasional boomerang catcher)