Pranav Ravichandran

Chennai, India. ⋄ *me@onloop.net* ⋄ *http://onloop.net*

Education

Anna University   2009-2013
St. Joseph's College of Engineering, Electrical and Electronics Engineering Department
Bachelor of Engineering in Electrical and Electronics Engineering
CGPA: 7.44/10

Thesis, Final year   2013
Gestural interface with Electrooculogram-based eye gesture detection and classification.

· Implemented processing code for the microcontroller to transmit signal data to the computer.
· Implemented the backend code for classification of signal data, including support vector machines, linear discriminant analysis and distance metrics (Euclidean, Chebyshev, Taxicab and Pearson).
· Created plug-in modules for extending core functionality, such as cursor control, toy car navigation etc.

University of Florida   Aug 2015 onwards
College of Engineering, Computer and Information Science and Engineering Department
Master of Science in Computer Science

Technical Strengths

Languages	Python, Common Lisp, JavaScript, C
Tools &Environment	Unix, Emacs, Bash, Git, Make/Cmake, Valgrind, Nginx, LaTeX
The Web	HTML, CSS, Django, Node.js, jQuery, Backbone.js
Databases	PostgreSQL, MongoDB

Experience

Google Summer of Code, Google   Apr - Sep 2011
Student Developer   *Remote*

· Implemented improvements and fixes to SMARTS, a Game Artificial Intelligence library for KDE Gluon.
· Integrated SMARTS into KDE Gluon, giving it the capabilities of a Behavior Tree system.
· Developed a KPart GUI to plug the SMARTS Behavior Tree editor into Gluon.
· Demonstrated the implementation with *The Quantum Sea*, an AI game of molecular interaction.

HappyFox, Tenmiles   Jan 2014 - Sep 2014
Full-stack Developer   *Chennai, India*

· Implemented features, enhancements and integrations for HappyFox and related components.
· Developed a decoupled REST-based task-server with Celery and RabbitMQ, to handle deferred services.
· Implemented contextual search for knowledge base articles using Latent Semantic Analysis.
· Created an experimental test data generator which generates sample data by recursively crawling tables in a database.

HappyFox Chat, Tenmiles   Sep 2014 - May 2015
Core Developer   *Chennai, India*

· Core member in development, maintenance and testing of the product and its related components from scratch.
· Implemented features covering the whole stack with components in MongoDB, Node.js, Backbone.js and various other JavaScript libraries.

National Institute of Information Technology   2009
Computer (A+) and Network (N+) Technician Certification.   *Chennai, India*

Open Source Contributions

Mozilla
2012-2013

· Developed a code commenting and uncommenting feature for the Mozilla Firefox source editor.
· Implemented W3C spec restrictions on WebIDL dictionary member types.
· Contributed other patches and bugfixes.

PySynth
July 2012

· Created an interactive Command Line Interpreter to parse Musical Notation and render tunes on the fly.
· Implemented multi-library support for audio playback.

Others

· Minor patches to Linux Kernel, CPython, Tomahawk Media Player among others.

Independent Projects

Transit.js
JavaScript

An extensive library to create purely client-side, interactive transit maps. Demonstrated in rail network simulation for the Chennai Suburban Rail system.

Suburl
Common Lisp

A placeholder substitution-based URL shortener and sanitizer that allows shortening individual parts of the URL as parameters to the short URL.

This.onloop
Common Lisp

Music Search and Album discovery tool that uses the Spotify Music API to extract information and crawls the web to aggregate album reviews.

Howstat
Python

Resident player-statistics lookup bot for Reddit's Cricket Community, /r/Cricket.

PDoS
C

Patterned Disruption of Silence - An exercise in Auralization, extrapolating algorithmic patterns, sorting algorithms in particular, to musical notes.

Others

An exhaustive list of projects, contributions and other open source work is available at my Github page.