Jesse Clark

+61 459 763 305 6/18 Thrupp St., Neutral Bay, NSW 2089 jesse@modusponens.org
Eligible to work in Australia and in the United States.

Experience

Maverick Poker 2014
Lead Backend Developer
Implemented a data and permissions model in Firebase for an online Poker game.

Destination Software 2013 – 2014
Engine Architect and Product Developer
Developed an e-commerce web server for the travel and hospitality industry. Implemented automated deployment and zero-downtime updates of Node.js and Riak servers. Supported web-accessible map/reduce queries of combined domain data and analytics data.

OneLessDesk 2014
Built a message-queue-based tool for business process management.

GoBoldly 2013
Full-Stack Developer
Implemented a novel isomorphic web application engine that works even in javascript-disabled environments, and progressively enhances based on available functionality. Implemented an iOS frontend and Parse.com backend for a geo-social networking app.

Scanadu 2012
Developed an iPhone application to capture images of flu test strips and interpret the results.

Noledgy 2012
Developed infrastructure for remote update and disable of an iOS application.

SolarCity 2012
Developed a Node.JS web application to display live sales metrics. Developed a C# Service Stack web application to display customer locations on a map.

Robot Panda Productions 2011
Network Programmer
Developed authentication process, remote procedure call API, and database schema for a political Facebook game.

Soundwave 2011
iPad music education application development, business communication

Schmoooz 2011
Developed a Node.js backend and an iPhone frontend for a geolocation-based chat service.

The Burn-Zone 2011 – 2012
Realtime sports discussion game built with Backbone.js and Socket.io

wherU 2011
Developed an iPhone frontend for a college campus check-in service.

NASA Ames Research Center July 2007 – April 2011
Computer Scientist
Human Computer Interaction Group: Developed integrated issue-tracking databases based on Bugzilla, written in Perl, Template Toolkit, MySQL, LaTeX, and JavaScript. Designed a format for displaying differences between snapshots of structured records. Acquired domain expertise to import unstructured data into a database. Developed a CGI-driven automated deployment script on RedHat/Apache servers. Established an automated testing framework using Cucumber and Selenium. Supported Space Shuttle, International Space Station, and Constellation programs.

Gabberface 2010
Optimized network and database performance for a PHP/MySQL Facebook search engine.

WoWGen 2008
Deployed a Ruby on Rails site to track and compare World of Warcraft player statistics, and associated administration tools. Developed an interpreter for dynamic character equipment formulas extracted from game data files.

NASA Goddard Space Flight Center June 2004 – June 2007
Computer Engineer
National Space Science Data Center: Recovered legacy science data from the Nimbus and TIROS projects. Wrote Perl scripts to correct for degradation and translate to modern formats such as HDF. Visualized results in Mathematica.
Hubble Servicing Mission 4: Implemented an RS232 transport layer between a FANUC industrial robot and a Borland C++ application which monitored a force/torque sensor, to facilitate closed-loop physics simulations. Established safety protocols for testing robotics in an open environment. Designed OpenGL graphics to communicate sensor information to the teleoperator. Advised an IRAD team on adapting sensor technology for "virtual feel" tools.

Wheels of Zeus 2003
Wrote PIC assembly code and laid out a printed circuitboard for a Segway key duplicator.

Institute for Computer Assisted Orthopaedic Surgery May 2002 – July 2002
Intern
Using Perl-Tk, designed and developed a graphical user interface for hospital patient database management and integration with in-house tools. In C and X-forms, developed a program to align x-rays with CT scans using a 6-dimensional BFGS search. Modified control hardware for use with computer systems in the operating room.

Refract Media 1997 – 2000
Configured and maintained Linux servers for a web hosting company.

Education

Carnegie Mellon University May 2004
Bachelor of Science in Computer Science, Minor in Mathematical Sciences
Coursework in systems programming, artificial intelligence, machine learning, cryptography, computational linguistics, bioinformatics. Presented a paper on cellular automata at Wolfram NKS 2004