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William Truong

*Senior Software Engineer, 6+ years experience, with a penchant for building expressive and performant software using functional and object oriented principles under system constraints. Always motivated to learn and use new technologies and methodologies, with a current interest in **Machine Learning** and **Data Science**.*

TECHNICAL SKILLS

Node.js: express, lodash, ES6, async.js, bluebird
Python: pandas, scikit-learn, numpy, matplotlib, graphlab
Other: Elasticsearch, Java, Java 8 Streams, R, ggplot2, dplyr, data.table, MongoDB

PROJECTS

Udacity Data Analyst Nanodegree

Udacity, August 2015 - August 2016

Occupations and their Prosper Score, August 2016,

- D3.js visualization showing the relationship between occupations and Prosper Score (2009-2014) **[d3.js, R, ggplot2, python]**

Identifying Persons of Interest in the Enron Scandal, July 2016,

- Use PCA, Gaussian Naive Bayes, and Decision Trees to gain insight on the employees who took part in the Enron scandal, using the publicly available Enron email dataset and employee financial records **[python, pandas, scikit-learn, matplotlib]**

Exploratory Data Analysis: Capital Bikeshare Program in Washington, D.C., Nov 2015

- Investigated the possibility of using linear regression to predict the number of bikeshare usage for a given hour and day of the week using cross referenced weather information **[R, ggplot2, dplyr]**

WORK EXPERIENCE

R&D Software Engineer
Fluid Inc., Feb 2016 - Present, (San Francisco, CA)

Currently building Fluid Expert Personal Shopper (XPS), the first e-commerce SaaS solution utilizing NLP technology and Machine Learning techniques that aims to provide online retailers with a service that provides customers with intelligent product recommendations by conversation. Current customers include 1800flowers.com and The North Face **[Node.js (Express), Java 8, ElasticSearch]**

- Work with 6 software engineers on a 1 week sprint to continuously deliver under AWS infrastructure **[EC2, S3, CloudFormation, CloudWatch, ElasticSearch]**
- Build RESTful web services under Express for implementation team to utilize **[Node.js, Express]**
- Conceptualized into production the use of ElasticSearch to take advantage of Lucene's abilities in handling unstructured text and relevance scoring
- Created a SGD classifier with text input to characterize products for implementation team to use on customer datasets **[pandas]**

Senior Software Engineer
General Atomics Aeronautical Systems Inc., Sept 2011 - Apr 2015, (San Diego, CA)

Responsibilities

- Worked with project engineers, vendors, and customers to create system and software level requirements, storyboard proposals for new features, define new software interfaces, write system test procedures, and implement software for reusable flight and ground components in several unmanned aerial systems under the service oriented architecture paradigm **[C/C++, Python, POSIX, Linux, VxWorks, MIL-STD-1553, TCP/IP, Pthreads, Qt, X11/Motif, XML]**

Accomplishments

- MQ-9 Air Force Special Operations Command Software Team (AFSOC), Jan 2014 - Apr 2015
  - One of two software leads in a new team of 10+, formed to increase MQ-9's multi-mission capabilities in regards to increased flight endurance, decreased takeoff time, additional weapon support, and new ISR platforms for AFSOC

    - Within one year, software team fielded 3 major system releases under 6 month release cycles, as opposed to the previous team working on the traditional 1-2 year release cycle
    - Spearheaded effort to refactor by using MVC and OO principles, a flawed design with the touch system responsible for multiplexing mission critical video sources on the ground control system. **[Linux, POSIX sockets, sigslot, X11/motif, C/C++]**
    - Main system release was named as a finalist in Aviation Week Program of Excellence Awards, 2015.
- MQ-9 Brimstone Demonstration, Oct 2013 - Dec 2014
    - Lead a software team to demonstrate potential capabilities of integrating MBDA's missile platform onto MQ-9 platform in a short span of 3 months **[C/C++, MIL-STD-1553]**
    - Successfully demonstrated during trials with 9 direct hits involving static, accelerating, weaving, fast and very fast remotely controlled targets
- MQ-1 US Air Force UAV Team, Sept 2011 - April 2012 (Under Contract), April 2012 - Oct 2013
    - Developed enhancements and resolved known anomalies in forward looking development branch that eventually made way to several software releases for multiple customers **[C/C++]**

Software Engineer
Northrop Grumman Information Systems, Jan 2009 - Sept 2011, (Sacramento, CA)

Software Lead for ELINT (ELectronic INTelligence) Subsystem, Jan 2011 - Sept 2011

- As a software lead worked closely with program management, system engineers, electrical engineers, sensor operators, and integration team to field last release of ELINT subsystem under Guardrail Modernization contract.

Software Engineer for ELINT Subsystem, Jan 2009 - Jan 2011

- Aided senior software engineer in developing Linux PCI kernel served to communicate with FPGA daughter card that commanded ELINT sensors **[C, Linux Kernel, MIL-STD-1553]**
- Thread-safed proprietary event-driven messaging interface used by subsystem to allow for development of multi-threaded applications **[C, Pthreads, TCP/IP, DNS-SD]**
- Developed an event-driven server daemon that resided on subsystem responsible for initialization and rerouting of messages between air and ground components **[C++]**
- Developed and documented command line test utility for electrical, test, and field engineers to verify and validate subsystem hardware **[C, yacc, lex]**

CERTIFICATIONS

Machine Learning Specialization, *Coursera*, Expected Dec 2016

Regression, Classification, Clustering & Retrieval, Recommender Systems & Dimensionality

Data Analyst Nanodegree, *Udacity*, Aug 2016

Data Munging, Exploratory Data Analysis, Classification, Data Visualization, A/B Testing

Machine Learning, *Stanford University on Coursera*, Jan 2016

EDUCATION

B.S., Computer Science, *University Of California, Davis*, 2009