408-598-7306
wtruong424@gmail.com
LinkedIn
github

William Truong

*Senior Software Engineer, 8+ years experience, with a penchant for building expressive and performant software using functional and object oriented principles under system constraints. Understands that code is read more than it's written or changed. Always motivated to learn and use new technologies and methodologies, with a current interest in **Machine Learning** and **Data Science**.*

TECHNICAL SKILLS

JVM: Java 8, Spring, JDBC, Scala, Apache Spark
Python: pyspark, pandas, scikit-learn, numpy, matplotlib
Node.js: express, lodash, ES6, async.js, bluebird
Other: MySQL, Elasticsearch, R, MongoDB, C/C++

WORK AND ACADEMIC EXPERIENCE

Senior Software Engineer
Health Fidelity, Oct 2016 - Present, (San Mateo, CA)

Key contributor to Risk Analytics team tasked primarily to transition existing data aggregation and batch processing functionality under **Java, JDBC, and MySQL** to a more scalable, distributed approach with **Scala and Apache Spark** to decrease costs and address business need of delivering ability to generate larger reports under a shorter amount of time

- Exposed to team a developmental workflow for rapidly prototyping batch processing functionality to serve as a proof of concept to upper management, showing potential to scale as well as having 56x performance gains for gigabyte scale datasets
- Applied prior working knowledge with bitsets and bitwise logic as an embedded systems engineer to notion of compound membership to speed up rule matching aggregation behavior to take only .05 percent of original time.

Took initial ownership of involvement to integrate Risk Analytics platform with new event infrastructure to consume real time events [**Kafka**]

- Work very closely with architect and infrastructure team to ensure new Kafka cluster and event infrastructure is ready for production by providing constructive feedback from downstream consumer's point of view.
- Laid the groundwork for Risk Analytics team to leverage stream processing capabilities for analytics when business need arises

R&D Software Engineer
Fluid, Feb 2016 - Sept 2016, (San Francisco, CA)

Part of Fluid Expert Personal Shopper (XPS), the first e-commerce SaaS solution aimed to supply online retailers with a service recommending products to customers with conversation through utilizing NLP and Machine Learning techniques **[Node.js (Express), Java 8, ElasticSearch, TinkerPop]**

- Customers included 1800flowers.com and The North Face
- Worked with 6 software engineers on a 1 week sprint to continuously deliver under AWS infrastructure **[EC2, S3, CloudFormation, CloudWatch, ElasticSearch]**
- Built RESTful web services under Express for implementation team to interface with **[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, scikit-learn, jupyter]**

Udacity Data Analyst Nanodegree
Udacity, August 2015 - August 2016

Occupations and their Prosper Score, August 2016,

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

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, jupyter]**

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 week using cross referenced weather information **[R, ggplot2, dplyr]**

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

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]**

- 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 previous team working on traditional 1-2 year release cycle
  - Spearheaded effort to refactor a flawed design with touch system responsible for multiplexing mission critical video sources on ground control system by using MVC and OO principles. **[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

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 **[C/C++, Pthreads, TCP/IP, DNS-SD]**.

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]**
- Developed and documented command line test utility for electrical, test, and field engineers to verify and validate subsystem hardware **[C, yacc, lex]**

CERTIFICATIONS

Big Data Analysis with Scala and Spark, *École Polytechnique Fédérale de Lausanne on Coursera*, Apr 2017

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