# Najmeh Kamyab Pour

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## **Summary**

- Over eight years of commercial experience in developing applications, APIs in different domains such as Banking, Telecommunication, Billing and E-learning Systems.
- Over eight years commercial experiences as software engineer in design, development and test
  of medium to large size applications using different languages and technologies in backend (e.g.,
  Java/J2EE, C/C++, PHP, Bash scripting), frontend (e.g., JavaScript/JQuery/Ajax/AngularJS, HTML,
  Bootstrap, CSS, XML, JSON), database (SQL, MySQL, PostgreSQL) on range of Linux and Windows
  platforms.
- Hands-on writing Lambda and Activity Workers function in AWS Cloud. Designing and implementing tests in order to test and monitor Lambda, Activity Workers functions and overall Data flow of the System in AWS cloud-based.
- Strong knowledge of Jenkins and Using it to define and run sanity/regression tests as part of the CI/CD pipeline. Creating, implementing and running production monitoring tasks as scheduled tasks in Jenkins.
- Expertise in writing JMeter scripts, running, and setting up a distributed test environment and performing distributed a grid load and cross-browser testing on Cloud.
- Ph.D. graduate in computer engineering at the University of Technology Sydney (UTS) with several publications in energy optimization in wireless sensor networks (WSN). Modeled Energy consumption in a typical WSN by applying linear regression. Analyzed the dependency between the Model's parameters, allowing the most relevant ones to be selected by applying different correlation methods (Pearson, Spearman and nonlinear second and third-degree correlations), Lasso regularisation and p-value. Used random forest regression to compare the accuracy of prediction for both original and reduced parameters in estimating the average energy consumption of the network.

### **Technical Skills**

- **Test tools:** Distributed apache JMeter, Linux scripting, Craft framework, Junit/TestNG, Selenium WebDriver, Selenium grid, Postman app, RestAssured API, Zephyr test management, and Jira confluence, Appium.
  - **Cloud infrastructure:** AWS resources:
  - Continuous integration tool: Jenkins

- Software development processes: Agile/Scrum
- Bug reporting/Incident logging tool: Bugzilla, Jira, SilkCentral
- Software management tool: Git(GitLab, BitBucket), CVS
- **Back-end languages:** Java/J2EE, C/C++, PHP, Linux shell scripting, Python,Matlab.
  - Front-end languages: JavaScript/jQuery/Ajax, Angular 6, HTML, CSS
  - Database: MySQL, PostgreSQL, SQL Server
  - Operating systems: Linux, Windows

### **Professional Certificates**

AWS Certified Developer - Associate (Released June 2018)

# **Professional History**

## 2019 - present Senior Software Engineer in Data Science/DevOps

Intellify, Sydney

### • Data Science project :

- Wrote Machine Learning Algorithms in Java.
- Broke down time-consuming tasks and ran in parallel using an event/message queue based architecture.
- Wrote Rest API the job's result by publishing as a benchmark.
- <u>Technologies used</u>: Java, Distributed Apache JMeter
- <u>AWS resources:</u> SQS, lambda, Redshift, RDS
- <u>Software versioning</u>: Git (Github)
- Continuous Integration: Jenkins

#### 2017- 2019 Senior Software Engineer in Devops/Test

<u>Matific</u>, Sydney Math Games and E-Learning for Schools

#### • Matific Automation project :

- Built from scratch the automation environment using java craft framework.
- Designed, developed an application to monitor the accuracy of the data flow in AWS infrastructure.
- Designed and implemented Lambda and activity workers in Cloud.
- Created Jenkins jobs to deploy the environment and run the tests as part of the CI/CD pipeline.

- Designed load scenarios and provided JMeter scripts to simulate traffic made by a different type of users and activities. The load test required generating valid users who do different activities. The load test performed as distributed on 40 AWS instances as a slave. As a result of the Load test several vulnerabilities of the system detected.
- Integrated test automation results with Jira tickets using ZAPI(Zephyr for Jira API). The process has been done as follows: For each test scenario, a test ticket in Jira created, each test had different steps. The tests developed based on test steps. When Jenkins runs the test, the status of each step was updated based on the test result including the outcomes and the logs in the ticket in Jira.
- Wrote Models, DAO Services, Components in Angular 4.
- <u>Programming</u>: Java, Selenium WebDriver, Linux scripting, postgresql, AngularJs 4.
- <u>DataBase</u>: PostgreSQL, DynamoDB, Redshift.
- <u>Technologies:</u> Selenium grid running on docker compose/docker swarm, distributed Jenkins, distributed Apache JMeter, Craft/Junit/TestNG, Postman, Zephyr for Jira API, Jira Test Management, Appium mobile testing.
- Analytics system: Mixpanel, google analytics
- <u>Software versioning</u>: Git (Github)
- Continuous Integration: Jenkins

#### 2016-2017

### **Software Engineer and Technical Support (Contract)**

<u>Alertness Cooperative Research Centres (CRC)</u>, The University of Sydney

#### • Nurse time scheduling (industrial client: Philips )

- <u>Full-stack Java/J2EE application around scheduling models,</u> initially implemented by USyd researchers in Matlab.
  - The Java/J2EE application communicates with Matlab code (running on different servers) via Apache ActiveMQ and RESTFul framework.
  - The API is designed to run the Matlab core, which is a very time-consuming module in any machine and scale up with multiple instances to serve multiple requests.

- Web application: the web site of the application (both front-end and backend) enables secure users' requests which are in CSV file or JSON format, grantees delivery of the queries and shows the history and status of each query using Apache ActiveMQ and MySQL. The result of each query after completion is sent to the customers via email in CSV format.
- Test: extensive tests have been developed (unit, integration and regression tests) using JUnit and Linux scripting.
- Technologies used:
  - Backend: Java/J2EE (Spring MVC, Hibernate, RESTFul Web Server)
  - Apache ActiveMQ
  - Front-end: AngularJs, HTML, CSS
  - Linux Shell scripting
  - MySQL
- Software versioning: Git (bitbucket)

### 2016-2017 Technical Support Software Engineer (Part-time)

Protocom Technologies Pty Ltd, Sydney

- Support and enhancement different parts of Digicel Bermuda system
- Support and enhancement different parts of Telstra Voice mail system
- Support and enhancement different parts of Telstra SMS system

### 2012-2016 Software Engineer (full time permanent)

Protocom Technologies Pty Ltd, Sydney

- Online secure bill payment (for Digicel Bermuda)
  - Achievement: Designed and developed online web application (both frontend and backend) to enable secure bill payment via credit card (for customers' data and mobile usage), managed high volume of input/output requests by optimizing SQL queries in MySQL database, created and maintained a synchronized backup server using MySQL replication, designed and implemented payment confirmation via SMS and email notification; different kinds of tests are required since dealing with payment and security.
  - <u>Technologies used</u>: Java(Spring MVC, Hibernate, RESTFul Web Server), AngularJs, SOAP Client/Server, Xinetd, Linux Shell scripting, MySQL, HTML, CSS
  - Software versioning : Git (Gitlab)
  - <u>Test:</u> Junit, integration and regression tests

#### • Signup web service (for Digicel Bermuda)

- <u>Achievement</u>: designed and developed web-based signup service to enable online registration of new users for Digicel latest services (both frontend and backend) followed by test cases.
- <u>Technologies used</u>: Java(Spring MVC, Hibernate, RESTFul Web Server), AngularJs, SOAP Client/Server, Linux Shell scripting, MySQL, HTML, CSS
- Software versioning : Git (Gitlab)
- <u>Test:</u> Junit and regression tests

#### VoiceMail and SMS services (on Telstra servers)

- Achievement: part of the team to design, develop, write test cases and deploy the services on Telstra voice mail servers. Besides, I developed three different provisioning modules along with automatic test cases in which each module has its own communication protocol (such as Telnet and MQ) with other components in the VoiceMail platform; users can check statistics of each module by provided functionality as well as perform real-time requests to the module via web pages.
- <u>Technologies used</u>: C++ (QT, MQ Server/Client Programming), PHP(zend), Python, PostgreSQL, JavaScript/jQuery/Ajax, HTML, CSS.
- Software versioning : Git (Gitlab)
- o <u>Test:</u> unit test, smoke test, integration and regression tests

#### Communication service with SMPP server (on Telstra servers)

- Achievement: designed and developed back-end communication service with SMPP server to enable sending and receiving customers' SMS along with sending a proper reply to customers, designed the test cases.
- <u>Technologies used</u>: C++ 11, Python, Linux platform, Linux Shell scripting, MySQL
- Software versioning : Git (Gitlab)
- <u>Test:</u> unit test, integration and regression tests

### Customer Traffic Migration and testing (on Telstra servers)

Achievement: responsible for Telstra database synchronization, system connectivity schematics, big data migration, critical application migration, application connectivity as well as regression and compliance testing, troubleshooting and resolving customer-side issues and inquiries. A big part of the

- migration was testing the functionality of the system (regression test and smoke test)
- <u>Technologies used</u>: Linux shell scripting, Python, Mysql, apache server, Xinetd
- <u>Test:</u> regression and smoke tests

#### 2010-2012 Software/Network Engineer

<u>iNext center</u>, University of Technology, Sydney (UTS)

- Wireless Network analyzer software (socket programming in C/C++, Python, Linux shell scripting, Embedded hardware)
  - Achievement: designed and developed the analyzer, configured two different types of network topologies (Star, cluster), monitored energy consumption in a network of 20 NICTA wireless nodes (Technology 802.11g) based on packet node's transmission, modeled and analyzed the energy consumption of the system
  - Platform used: NICTA Norbit Wireless Lab

#### • Alarm SMS for Nursing and healthcare web server (Java)

 Achievement: Configured and managed a Linux-based network (SQL, Tomcat Apache server), installed and configured healthcare web server application, developed Alarm SMS generation using ACM programming/Java, designed and developed test cases.

#### Wireless Sensor Network (WSN) Simulator (Java)

- Achievement: a Completed project by using threading and GUI technologies, handles a large number of nodes for big experiments (around 100 nodes- each node is a thread)
- <u>Language</u>: Java (Swing, Threading)

### Programming MICA2 motes using TinyOS

 Achievement: Designed a routing algorithm to minimize the energy consumption of sensor networks and developed a network includes 10 MICA2 nodes. Programmed MICA2 nodes to communicate with each other based on the algorithm.

### **Education**

#### 2016 Ph.D. in Information Technologies

University of Technology, Sydney Wireless sensor network, computer network Azad University, Tehran south branch

# Referees

• Available on request