POURIA POURRASHIDI

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LinkedIn * GitHub * Website

SUMMARY

- Designed, developed, and delivered IoT networks, distributed systems architectures, data analyzing, SDN topologies, and web/phone applications based on Python, JAVA, JS, CSS, and SQL.
- My main interests are software development and/or networking in areas such as network programming, distributed systems, network design, web applications, and data analyzing.

EDUCATION

Concordia University Jan 2021 - Ongoing

M.Sc. in Electrical and Computer Engineering (CGPA: 4/4.3)
Thesis Subject: Cloud-Edge Computing in IoT Task Offloading.

Iran University of Science and Technology (4th university in Iran) Sep 2015 - Jun 2020

B.Sc. in Computer Engineering.
Capstone Project: Blockchain Solution to Improve SDN Vulnerability.

WORK EXPERIENCE

Distributed Systems Designer and Python Developer at Concordia University Jan 2021 - Ongoing

- Developed a novel Q-learning SDN-based solution for IoT task offloading for video analytics applications.
- Implemented a new lightweight workload balancing algorithm for IoT video analytics applications.
- Designed an innovative SDN-enabled Edge Computing Load Balancing Scheme for IoT Video Analytics.

Part-time JavaScript Developer at Ofoq Kourosh May 2020 - Jan 2021

- Collaborated as a part of a programming team to develop an online ordering system for Ofoq Kourosh super application so that the company branches become able to receive online orders of customers.
- Utilized RabbitMQ to make interdependent services to communicate with each other to process the costumer order, each of these services are responsible for a specific task to process the order.

Developer and Project Advisor at National Organization for Talented Students Sep 2019 - Feb 2020

- Developed a system for detection of agricultural pesticides by smart phones using image processing.
- Collaborated with engineers from different fields such as Chemistry and Industrial engineering to build an application that responded to their needs through scrum.

Part-time Data Analyzer at Pishgaman Tose Ertebatat Apr 2018 - Aug 2018

- Developed multiple scripts to meet specific data needs of Electronic Commerce department with Python.
- Implemented Python codes to interact with SQL server and extract sales data to produce reports and charts that are in accordance with the needs of department to analyze their financial situation using modules, such as NumPy, Pandas, SciPy, and Matplotlib.

Part-time Network Performance Data Systems at Pishgaman Tose Ertebatat Oct 2017 - Mar 2018

- Collaborated as a part of ICT team to monitor network performance and entry of data packets into the network and utilized network monitoring softwares such as Zabbix and Cacti to check network traffic status and modify routes to improve performance.

TECHNICAL / COMPUTER SKILLS

- **Programming Languages:** Python, Java, JavaScript, HTML, CSS, C, C++, Matlab, SQL, and Git.
- **Softwares and Emulators:** Eclipse, Oracle VirtualBox, Postman, Intellij, Pycharm, Jira, VMware vSphere, ESXi, VMware Workstation, Latex, Visual Studio, Mininet, Matlab, Cisco Packet Tracer, GNS3.

PROFESSIONAL DEVELOPMENTS

- Scrum Master (Udemy)
- Full-Stack Developer (Zero to Mastery Academy)
- Python for Machine Learning (Concordia University)
- Network+ (Laitec Sharif)
- JAVA Developer (Udemy)
- MCSE 2016 (GRS)
- CCNA (Laitec Sharif)

ACADEMIC COURSE-BASED PROJECTS at CONCORDIA UNIVERSITY

- Designed a virtual network with network security tools, based on openStack. Sep 2021
- Modeled a dynamic room heating system for couple of connected rooms with Matlab and Simulink. Aug 2021
- Implemented a real-time smart system to monitor and diagnose of vehicle's health under QNX. Mar 2021
- Implemented a remote and distributed file storage using Remote Method Invocation (JAVA). Mar 2021
- Developed Map-Reduce program using Hadoop to count number of words appear in dataset (JAVA). Feb 2021
- Implementation of a matrix multiplication using Message-Passing Interface (C). Jan 2021

TEACHING EXPERIENCE at CONCORDIA UNIVERSITY Sep 2021 - Ongoing

- Taught, designed, and evaluated different courses to several undergraduate students: Databases, Programming Methodology (2 Semester), Digital System Design (2 Semester), Computer Organization & Software (3 Semester), System Hardware (3 Semester), and Introduction to Discrete.
- Taught, designed, and evaluated different courses to several graduate students: Computer Networks & Protocols, Data Communications & Computer Networks, Program & Problem Solving, and Computer Organization & Assembly Language.

PUBLICATIONS

[1] Pourrashidi, Coutinho, and Shayan. "A Novel SDN-enabled Edge Computing Load Balancing Scheme for IoT Video Analytics." IEEE GLOBECOM 2022- IEEE Global Communications Conference.

[2] Pourrashidi, Coutinho, and Shayan. "SDN-LB: A Novel Lightweight Workload Balancing Algorithm for IoT Video Analytics Applications." ELSEVIER Journal - Computer Communications 2022.

[3] Pourrashidi, Coutinho, and Shayan. "SDNQ: A Novel Q-learning SDN-based Solution for IoT Task Offloading for Video Analytics Applications." to be submitted.