Prem Raheja

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SUMMARY

- Results-oriented software developer and research professional with 1+ years of industry experience
- Proficient in data analysis, developing and designing software-based architectures
- Created software with the customer centric and applications with a usable and intuitive user experience while working with Quantiphi Analytics
- Researched, synthesized and evaluated technical information and break downs information into manageable components while working on the project "Music is all you need to Analyze Data"
- Constantly striving to learn new technologies and discover techniques to improve myself in this dynamic industry while pursuing Masters in University of Alberta

EDUCATION

Masters in Computing Science, Multimedia Specialization

University of Alberta, Edmonton, Canada

Sep. 2019 – Dec. 2020 CGPA: 4.0/4.0

Relevant Coursework: Multimedia Communications, Artificial Intelligence, Image and Video Processing, Virtual Reality and Telepresence, Computer Vision

Bachelor of Engineering, Information Technology Specialization

June. 2014 – May. 2018

Sardar Patel Institute of Technology, Mumbai, India

CGPA: 8.6/10

Relevant Coursework: Software Engineering, Database Management System, Cloud Computing

SKILLS

Programming Languages: Python, Java

Database : MySQL, MongoDB, DynamoDB, Neo4j

Cloud Platform : Google Cloud Platform, Amazon Web Services

Framework : Django, Flask

CI/CD Tools : Concourse, Jenkins, Git

Tools : Visual Studio, Eclipse, Anaconda, Docker

WORK EXPERIENCE

Backend Developer

July. 2021 – Oct. 2021

Brickstreet.io, Mumbai, India

- o Architected and developed Brickstreet's backend system.
- Designed and developed a Role Based Security Framework. Produced schema designs and operational plans to enforce and maintain identity management workflows using Django and MongoDB
- Developed REST APIs to cater features like instant messaging, news feed, discussion forums and shopping cart

Cloud Platform Engineer Intern

May. 2020 – Dec. 2020

Royal Bank of Canada, Toronto, Canada

- Managing Elastic Cloud Enterprise (Elasticsearch and Kibana) and Apache Kafka Platforms deployed on private cloud using Ansible as Configuration Management tool
- o Providing ECE and Kafka as a Service to 70+ internal RBC's application teams
- Provisioned Concourse pipeline as a build tool for executing various Ansible and Python scripts used for maintaining the platform
- o Created an automation tool to update the patching server based on the requirement of 120 servers
- o Contributing to document major scripts, How Tos and improving Git branching strategy

Software Developer

July. 2018 - Aug. 2019

Quantiphi Analytics Solution Private Limited (Athenas Owl), Mumbai, India

- Designed and developed a file management system using REST APIs which manages 10 TB of storage, file naming, metadata of files/folders on top of Google Compute Engine and MongoDB using Python
- Designed and developed an automated process for pre-workflow pipeline that identifies the type of input and other hyper-parameters required by the workflows
- Defined, developed, and evolved software in a fast paced and agile development environment using latest software development methods and infrastructure
- Collaborate with a scrum team of 20 consisting of system engineers, data scientists, and software developers to implement solutions that are aligned with extend shared platforms and solutions

PROJECTS

Online Video Streaming Mechanism with Servers Deployed Over Cloud Jan. 2020 – April. 2020

- Created a technique to balance the traffic for serving multiple users without delay in spite off all the computation power required by video transcoding
- Optimized the Quality of Experience (QoE) by considering dynamic adaptive video streaming techniques
- o Reduced the load on the server's workload by designing a container based architecture

Music is all you need to Analyze Data

Sep. 2019 - Dec. 2019

- Engineered a LSTM based architecture that would help visually impaired people to analyze data through music generated by the model using Python and PyTorch
- Conducted an online survey where 69% of the participants were able to match the generated audio with the correct trajectory proving the favourable outcome of the project
- Self-managed workflow in fast paced environment that required attention to details and adherence to strict deadlines

Task Specific Image Enhancement

Sep. 2019 - Dec. 2019

- Developed an Image Pyramid Technique as well as a deep learning model using Generative Adversarial Network(GANs) to dehaze the image for better resolution assisting surveillance applications
- $\circ~$ Obtained results were then passed through a fixed object detector improving its performance by 8.5%
- Demonstrated the project results to subject Professor and Director of the Program and created a project report summarizing the entire research

SELECTED PUBLICATIONS

- Color Balanced Histogram Equalization for Image Enhancement
- Mapping Urban Ecosystem Services Using Synthetic-Aperture Radar (SAR) Images from Satellite Data for Rural Microgrids in India
- Knowledge discovery, analysis and prediction in healthcare using data mining and analytics

AWARDS

- Awarded from University of Alberta for Painting in 3D environment using Virtual Reality(VR)
- Awarded with Ace of Initiative and One for All Award while working with Quantiphi Analytics Solution Pvt. Ltd for my out-of-the-box thinking and problem solving skills
- Awarded with Best Project Award for Academic Year 2018 for high design sensibility, creativity and initiative for

Volunteering and Leadership Experience

- o Conducted and managed team celebrations, team outings for 1 year attended by up to 150 people
- Chairperson of student committee, managing various technical workshops, treks, Industrial visits for upto 240 undergrad students
- Organized a national level Hackathon in collaboration with Computer Society of India(CSI) Mumbai
 Chapter which was attended by 100 teams