Puneet Soni

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EDUCATION:

M.S, *University of California Merced – **Electrical Engineering and Computer Science*** *(August 2019 – May 2021)*
Course Work - Advance Algorithm Design and analysis, Parallel Computing, Distributed Systems
B.Tech, *JECRC University - **Computer Science*** *(July 2012 - August 2016)*
Course Work – Design analysis of algorithms, Data Structures, Operation Systems, Object-Oriented Programming

WORK EXPERIENCE:

Software Engineer at **Accenture Solutions Private Limited**, Bangalore *(December 2016 – June 2019)*
Project: **SHELL - Engineering Hub**
   • The Engineering Hub application is a smart monitoring application which detects and prevents process or equipment failures. Providing timely information that reduces costs or improves efficiency and profitability.
      • Worked on the Automation Infrastructure Development using Fitnesse (Selenium Fixture). Execution of Selenium Test cases and Reporting defects.
      • Worked closely with clients to gather customer requirements and coordinate within team from initial development through implementation.
      • Maintained issue tracking, documentation and provide reporting that ensures proper tracking and visibility of issues, and project deliverables.
Key Achievements:
   • Received the spot award as the best performer for automating the application with the manual effort reduced to 90%.
Project: **SHELL - Supply Chain Revenue Tool**
   • Worked on interface design, development, and implementation of the Supply Chain Tool. The application is primarily an analysis and reporting tool for the Convenience Retail Business to get a summarized and detailed view of the expected Client(Shell) earnings from the products sold by various markets.
   • Worked closely with the client to prepare documents such as Functional Requirements and Technical Requirements.
Key Achievements:
   • Awarded as **Best Performer** of the month **twice** in the year 2017 for improving the overall **application performance** by 10% using bundling and minification techniques. Optimized the database performance by refactoring the logical (Schema & Relational constraints), physical design (Parameters & Indexes) and SQL queries.
   • Internationally recognized & rewarded for **delivering the best performance** and highest percentage wise **target achievement** in 2017.
Project: **Vantage - Google Assistant**
   • Worked on the development and implementation of Google's virtual personal assistant into Client(Shell) Applications. The application was built to resolve customer queries for money transaction and product information using google assistant API service. It was presented to MD of Accenture, India.
Software Intern at **Genx Softwares**, Jaipur *(April 2016 - July 2016)*
   • Healthcare professionals: Created frontend single page application using Bootstrap and Uikit for customers. Also created an admin console for doctors and users to add and update the information. Designed the backend using PHP.
Software Intern at **Pianta.com (Acquired by GO-JEK)**, Bangalore *(January 2016 – March 2016)*
   • Admin Console: Designed and developed onboarding web console for service providers to provide their information and different services they want to offer. Console consists of services/events like create, edit, update and save.
   • Automated verification of Android and Web console: Responsible for creating automation test-suite for continuous verification of backend API and Android application.

SELECTED PROJECTS:

Runtime data management on heterogeneous main memory systems for deep learning with dynamic computational graph: Designed a runtime system that automatically optimizes data migration on a HM with a dynamic computational graph. The goal was to achieve performance which is similar to the fast memory-only system with a much smaller capacity of fast memory in HM by implementing the data placement algorithm on TensorFlow 2.0.
DistJobScheduler - Asynchronous Workload Processing System: Designed and developed a distributed system that performs job admission, job scheduling, and job execution. The system is divided into five main components: Job Client, Jobs API, Job Scheduler, Job Agent and Job Executor. Users can use Job Client to submit a job and query for its completion status via Jobs API. Once a job is submitted, Job Scheduler schedules the Job on the appropriate Job Agent to be executed via Job Executor.

TECHNICAL SKILLS:

Programming Languages: C++, C, Java, Python, Bash
Software and Tools: Git, Bootstrap, MySQL

RESEARCH INTERESTS:

My research interests span the areas of distributed computing and data science.

TALKS/SEMINARS GIVEN:

   • **Apache Mesos** - *A Distributed Systems Kernel (JECRC University)*
     Key Achievements: Won the best talk award.
   • **Apache Hadoop and MapReduce** - *Large-scale data processing sets (JECRC University)*
   • **Smart Surveillance** – *Artificial Intelligence and Digital Image Processing in surveillance systems to detect crime or crime related events (JECRC University)*