Puneet Soni

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EDUCATION:

- **M.S., *Electrical Engineering and Computer Science*,**

University of California Merced (August 2019 - May 2021)

  - **Course Work -** Advanced Algorithms, Parallel Computing, Distributed Systems, Computer Vision

- **B. Tech, *Computer Science*,**

JECRC University, India (July 2012 - August 2016)

  - **Course Work -** Design analysis of algorithms, Data Structures, Operating Systems, Object-Oriented Programming

SKILLS:

- **Programming Languages:** Java, Python, C/C++, HTML, CSS, JavaScript, XML, Bash
- **Software and Tools:** Git, Bootstrap, MySQL, Tableau, Power BI, Excel Charts, Jupyter Notebook
- **Libraries:** NumPy, Matplotlib, sci-kit-learn, TensorFlow

SELECTED PROJECTS:

- **Zero shot learning:** Implemented a zero-shot learning model which classifies unobserved images or objects during training. The model aims to help machine categorize unobserved objects by training and learning from both the labeled source data and the unlabeled target data. In this project, my role was to train the machine learning model for feature extraction of classes and to **predict** the label for the **unobserved images.** (Technologies used - PyTorch, OpenCV, NumPy, pandas, and matplotlib).

- **Object-X-detection using feature and template matching:** To identify objects of different categories within an image and differentiate between them based on their categories using the heuristic approach. In this project, my role was to design, implement and optimize matching algorithms to get the best match results in an image using OpenCV, NumPy, pandas, and matplotlib. (Algorithm delivered the **best** match **accuracy** of 93.45% in 0.34 seconds as feature matching uses key points and descriptors which gives accurate results in an image) (GitHub).

- **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 the Jobs API. Once a job is submitted, Job Scheduler schedules the Job on the appropriate Job Agent to be executed via Job Executor (GitHub).

WORK EXPERIENCE:

- **Accenture Solutions Private Limited** *(Dec 2016 - Jun 2019)*

  Software Engineer

  - Project: **SHELL - Engineering Hub**
    - The Engineering Hub application is a smart monitoring application that 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. Collaborated closely with clients to gather customer requirements and coordinate within the team from initial development through implementation.
  - **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 summarized and detailed view of the expected Client (Shell) earnings from the products sold by various markets.
    - Collaborated 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 transactions and product information using google assistant API service. It was **presented to Managing Director** of Accenture, India.

- **Genx Softwares** *(April 2016 - July 2016)*

  Software Intern

  - 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.

- **Pianta.com (Acquired by GO-JEK)** *(Jan 2016 – Mar 2016)*

  Software Intern

  - 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.

RESEARCH INTERESTS:

- Research interests span the areas of distributed computing and data science.