

PRANAY SOOD

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SUMMARY OF SKILLS AND QUALIFICATIONS

Machine Learning Tools | TensorFlow • NLTK • SciPy • Scikit-learn • Transformers • Pandas • NumPy • Matplotlib
Programming | Python • C • JavaScript • HTML • CSS
Version Control & Methodologies | Git • GitHub • JIRA • Agile and Scrum
Platforms | Microsoft Azure • Linux • Windows Servers
Other | Microsoft Azure • IBM FileNet P8 • ServiceNow

EDUCATION

Master of Engineering – Electrical and Computer Engineering **2022-2024 (Expected)**

Concordia University, Montreal, Quebec, Canada

- Relevant Courses: Software Engineering, Telecommunication, and Higher Layer Protocols.

Bachelor of Engineering - Electronics and Communication **2016- 2020**

Sathyabama Institute of Science and Technology, Chennai, India

- Relevant Courses: Software Engineering, Communication Systems, Digital Communications.

WORK EXPERIENCE

DXC Technology(Hewlett Packard Enterprise), Associate Software Engineer **June 2020- March 2022**

- Performed root cause analysis of incidents in production systems.
- Collaborated in the Hybrid migration of on-site datacenters to Microsoft Azure platform which involved creating, testing, maintaining, executing the Virtual machines, Windows Servers, Linux Servers.
- Monitor daily server backups, disk space, and system performance of on-premises systems and coordinate with vendors for the hosted datacenter environment.
- IBM FileNet P8, Dynatrace, Microfocus Reflection, Windows/Linux Servers.

PROJECTS

Anomaly Detection in Cloud Microservices using Machine learning **2024**

- Implemented and compared traditional machine learning methods using SOTA Root Cause Analysis algorithms with the predictive analysis generated from the LLM Models.
- Engaged in the development of anomaly detection system for cloud services using Python, incorporating NLP and machine learning to facilitate real-time performance analysis.
- Advanced data processing efficiency with Pandas and NLTK, utilizing Transformer models.
- Utilized Large Language Models (LLMs) including LLAMA 2, Genstruct, and Mixtral, benchmarking their performance to enhance predictive accuracy.
- Designed a comprehensive evaluation matrix with metrics such as TF-IDF, BERT, etc., to enhance hypothesis accuracy and boost system dependability.

Real-Time Object Detection Using Expectation Maximization Algorithm **2023**

- Developed a state-of-the-art object detection system with Python and OpenCV, employing Gaussian Mixture Models and Expectation Maximization for adaptive background segmentation.
- Focused on real-time processing and integration of statistical algorithms to facilitate dynamic object tracking

within video streams.

Content Delivery Network Design and Implementation

2023

- Led the creation of an enhanced Content Delivery Network using HTTP/2, focusing on efficient data transmission and improved video streaming quality.
- Implemented Round Robin load balancing for superior content delivery and user experience.
- Oversaw project from inception to launch, incorporating user-centric features for video streaming optimization.

Telecommunications Network Optimization Project

2023

- Orchestrated the integration of multi-router setups within simulated wireless networks to improve data packet routing efficiency.
- Conducted comparative analyses on network performance under fading vs. non-fading conditions, deriving insights on signal integrity and throughput.
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News Aggregation Website Project

2022

- Led the creation of a news aggregation website, aggregating real-time news feeds from multiple APIs with dynamic content categorization.
- Implemented secure authentication mechanisms and user interface elements using advanced web technologies and Python scripting.
- Oversaw collaborative project management tools such as Confluence, Jira, and GitHub, facilitating team collaboration and source code management.
- Produced comprehensive UML, functional diagrams, and workflow charts to streamline development and enhance project clarity.

CERTIFICATION / WORKSHOP

- Engaged in an intensive workshop by MathWorks, focusing on AI and machine learning applications using MATLAB.
- Microsoft Azure AZ-900

VOLUNTEER WORK

- Volunteered for the Graduate Student Association (GSA), showcasing strong organizational skills and effective teamwork.