PRITHVIRAJ CHAUDHURI

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TECHNICAL SKILLS

Programming Languages	- Front End: AngularJS, React, Typescript, JQuery, Javascript. Backend : Python, Java
Frameworks	- Apache Sling, Java Spring Boot, Langchain, Django
Platforms	- AWS, EKS, OpenShift, OpenEdx, ServiceNow, GCP
Other Skills	- Datastores: MySQL, PostgreSQL, JCR Helm Charts, Kubernetes, Linux, Bash, Ansible, Gitlab CI/CD pipelines, APIs, OpenStack

EDUCATION

Master of Computer Science August 2019 – May 2021 GPA – 3.92
North Carolina State University (NCSU), Raleigh NC

Bachelor of Technology, Computer Science and Engineering August 2012 – June 2016 GPA – 8.71/10
RCC Institute of Information Technology (Affiliated to Maulana Abul Kalam Azad University of Technology), Kolkata, India

WORK EXPERIENCE

Senior Software Applications Engineer, Red Hat Oct 2022 – Present
- Implemented and customized Asset management workflows on digital repository systems like AEM and Alfresco
- Developed platform and LLM agnostic RAG framework in collaboration with other teams to ease retrieval of internal documentation, using LangChain, Python and Chatbot built on Quarkus
- Customized sales and marketing platform, AEM with React, Java and JCR to streamline asset lifecycle
- Migrated applications and hosts from legacy data centers to OpenStack and Openshift VMs using OpenStack CLI with Linux OS images and ansible playbooks to modernize infrastructure and create consistent provisioning mechanisms
- Designed, implemented and rightsized infrastructure on AWS for Lucidworks Fusion, using EKS on EC2 nodes for high availability

Software Applications Engineer, Red Hat June 2021 – Sept 2022
- Enhanced microservice based Java spring boot apps with optimized solutions to requirements
- Built and designed automated deployment pipelines using OpenShift and Jenkins to streamline deployments and rollbacks
- Implement ad hoc scripts using Python, bash etc. as and when required for various stories to run asynchronous jobs
- Identified issues and developed issues with multithreaded applications and distributed transactions for faster execution times.
- Design and develop CI/CD workflows to deploy application infrastructure, run automated tests using OpenShift and Gitlab

Graduate Research Assistant, North Carolina State University January 2020 – Present
- Implemented custom components (XBlocks) on OpenEdx for smart course design and migration of courses between instances
- Integrated research projects to enable more intelligent and dynamic course generation in OpenEdx with Java, Python and Django
- Built dashboards with Django and converted apps to container deployments, for consistency of deployment and maintenance

Full Stack Web Developer Intern, Red Hat May 2020 – August 2020
- Used Java Spring Boot and Pug/Jade to implement bulk upload of data to resource management application
- Enhanced search application to enable smart searching of employee records in the organization
- Designed and developed automated deployment driven by Jenkins and Git for faster delivery times and easy maintenance

Systems Engineer, TATA Consultancy Service Ltd, Kolkata India July 2016 – August 2019
- Implemented Service Catalog on ServiceNow for end users to utilize ServiceNow ITSM modules using CMS
- Integrated ServiceNow with external systems to streamline information flow
- Automated tasks by translating manual processes to system and leveraging ServiceNow orchestration platform
- Designed and developed a unified REST API integration application on ServiceNow to enable faster integration
- Migrated Service Catalog hosted in CMS to Service Portal using AngularJS

PROJECTS

- Improved performance of simulation algorithms by leveraging parallel device and multithreaded capabilities of CUDA, OpenACC, OpenMP and MPI. Optimized algorithm by carefully managing memory operations
- Studied performance benefits of the same algorithm by leveraging parallel processing using CUDA, OpenACC, OpenMP and MPI
- Studied performance of various transformer networks, CNNs and word embeddings in terms of Bleu Score and Cosine similarity on flickr9k dataset
- Built homelab infrastructure with Ansible and Docker for building and deploying custom apps and jobs for automating daily mundane tasks (e.g. Archiving Notion notes, Categorizing emails before reading etc.)