

# PRITHVIRAJ CHAUDHURI

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## TECHNICAL SKILLS

**Programming Languages** - C, OpenMP, MPI, CUDA, Makefiles, Git, Standard Linux Operations, Python, Java, MySQL, Cassandra, MongoDB, PostgreSQL, R, MATLAB, HTML5, CSS3, JavaScript, jQuery, Angular, PHP, C#, ASP.NET, Travis

**Platforms & Frameworks** - Tensorflow, Keras ServiceNow, OpenEdx, Java Spring Boot, OpenShift and Docker, REST APIs, Java and Python Unit Testing

**Certifications** - Oracle Certified Java SE 7 Programmer, ServiceNow Certified System Administrator, EXIN Certified DevOps Master, ITIL Foundation Certified, TCS Internal E0 Angular JS Certified

## EDUCATION

**Master of Computer Science** GPA – 3.92 May 2021

North Carolina State University (NCSU), Raleigh NC

Courses – Parallel Systems, Software Engineering, Automated Learning and Data Analysis, Compiler Construction

**Bachelor of Technology**, Computer Science and Engineering GPA – 8.71/10 June 2016

RCC Institute of Information Technology (Affiliated to Maulana Abul Kalam Azad University of Technology), Kolkata, India

## WORK EXPERIENCE

**Software Applications Engineer**, Red Hat June 2021 – Present

- Enhance and maintain Java spring boot applications with optimized solutions to requirements. Involves full stack development.
- Build and design automated deployment pipelines using OpenShift and Jenkins
- Implement ad hoc scripts using Python, bash etc. as and when required for various stories
- Identified issues and developed issues with multithreaded applications and distributed transactions.

**Graduate Research Assistant**, North Carolina State University January 2020 – May 2021

- Implemented custom learning components on OpenEdx for better course construction
- Established automated course restructuring using existing student performance
- Customized OpenEdx environments for automated deployment and migration of courses between environment
- Developed Django administration panel to enable easy setup and configuration of applications across multiple servers
- Automated deployment of applications across servers using Docker and docker-compose

**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
- Containerized applications to establish automated deployment using OpenShift and Jenkins
- Designed and developed automated deployment driven by Jenkins and Git for faster delivery times and easy maintenance
- Studied feasibility of deploying applications on multiple cloud platforms of OpenShift

**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 Angular JS
- Established asynchronous data exchange between ServiceNow and Microsoft Active Directory

## PROJECTS

- Improved performance of simulation algorithm 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
- Performed a study on Multimodal Classification performance (using Python TensorFlow) vs Single mode classification on Yelp dataset to prove whether multimodal performance is better than standard classification