RISHIKA GURRAM

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EXPERIENCE

Graduate Teaching Assistant *Sep 2024 - Dec 2024*
Northeastern University, USA

- Mentored 50 students in CSYE7015: High-Performance Computing and Parallel Machine Learning, providing in-depth guidance on parallel architectures, HPC clusters, and multi-CPU/GPU implementations

Software Engineer *Jul 2023 - Dec 2023*
12-15 Molecular Diagnostics, USA

- Developed testing software for an Arduino-based biomedical device, enabling real-time data collection, test execution, and result generation, enhancing lab efficiency and precision
- Executed ETL processes with Python and SQL to analyze 5,000+ test results, creating interactive Tableau dashboards that reduced analysis time by 60%
- Refactored Python code for the device, increasing operational efficiency by 40% and streamlining workflows
- Migrated desktop applications to cloud-based web apps (Django, React.js, MongoDB), enhancing system accessibility and efficiency by 50%

Software Engineer *Dec 2020 - Aug 2022*
Accenture, India

- Automated role-based provisioning and access workflows in Oracle Hyperion Workspace using advanced SQL procedures and UNIX shell scripts, reducing manual effort and ensuring audit compliance
- Engineered data migration and hierarchy synchronization pipelines across Dev, UAT, and Prod environments, utilizing batch scripting and LCM (Lifecycle Management) utilities to cut environment setup time by 60%
- Optimized Hyperion Planning performance by tuning Essbase calc scripts, refining data load rules, and troubleshooting SmartView integration issues for faster, more reliable financial forecasting

Software Engineer *May 2020 - Nov 2020*
Frigg Business Solutions, India

- Designed and developed a scalable, tiered loyalty application using Java and WebLogic, integrating reward management and redemption processes to drive an 80% increase in customer engagement
- Conducted extensive performance and scalability testing using Selenium (Python), JMeter, and Postman, optimizing data retrieval speed and enhancing application responsiveness and reliability

PROJECTS

Restful Services on Cloud (AWS, Python FastAPI, PostgreSQL)

- Architected a scalable three-tier RESTful API infrastructure on AWS utilizing Terraform templates for automation, resulting in a 50% decrease in infrastructure provisioning time
- Engineered a robust CI/CD pipeline using GitHub Actions and Packer AMI builder, reducing deployment time by 90% to just 20 minutes, increasing development efficiency
- Configured Application Load Balancer with CloudWatch-triggered scaling, handling 10,000+ requests

Leveraging Parallel Processing for AI image detection (PyTorch, CUDA, Discovery Cluster, NVIDIA GPU)

- Implemented EfficientNetB3, for image classification, achieving high performance with fewer parameters through efficient scaling and depth-wise convolutions
- Optimized parallel processing on a 6GB dataset using multiprocessing, DDP, and AMP with multi-GPU and CPU setups, reducing processing time by 93% and improving image detection accuracy by 75%

SKILLS

Languages: Python, Java, C++, Unix Shell Scripting
Cloud Technologies: AWS (EC2, RDS, S3, CloudWatch, Route53, IAM), Terraform, GitHub Actions, Azure
Web Technologies: React JS, Node JS, Express, Django, HTML/CSS
Databases: Oracle, PostgreSQL, MySQL, MongoDB
Tools/IDE: Git, Docker, Packer, Postman, HPC Clusters (OpenMP, DASK), RESTful APIs, Oracle Hyperion

EDUCATION

Northeastern University, Boston, MA *Dec 2024*
Master of Science in Information Systems (Computer and Software Engineering)
Coursework: Cloud Computing, Design Patterns, Algorithms, Web Design, Machine Learning, Agile Software Dev

Jawaharlal Nehru Technological University, Hyderabad, India *May 2020*
Bachelor of Technology in Electronics and Communications Engineering