

KARTIKI BHANDAKKAR

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EDUCATION

North Carolina State University, College of Engineering Raleigh, NC, US
Master of Science, Electrical and Computer Engineering | **GPA: 3.95/4** Aug 2022 - May 2024
Coursework: Cloud Computing, Computer Vision, Neural Networks, Digital Imaging Systems, Data Structure & Algorithms
Savitribai Phule Pune University, Pune Institute of Computer Technology Pune, MH, India
Bachelor of Engineering, Electronics and Telecommunication | **GPA: 8.48/10** Aug 2016 - May 2020

TECHNICAL SKILLS

Languages: Python, Java, C++, MATLAB, MySQL, HTML, Javascript, Ruby.
Frameworks: Oracle Utilities Application, Ruby on Rails, Flask, TensorFlow, PyTorch, REST API
Tools & Databases: OpenCV, Oracle Revenue Management and Billing, Git, Kubernetes, Oracle, MySQL, NoSQL

WORK EXPERIENCE

Teaching Assistant | North Carolina State University Jan 2023 - Present

- Guided a large class of 100 graduate students through the graduate-level course “Object-Oriented Design and Development”, collaborating with the professor to design and deliver engaging and informative lectures.
- Accomplished 25% improvement in test coverage and 40% enhancement in code quality for Expertiza by systematically refactoring the codebase and mentoring 40+ open source contributors.

Full Stack Developer Intern | RIA Advisory May 2023 - Aug 2023

- Built reusable front-end components on Angular and backend microservices on Spring Boot for async order transactions.
- Integrated FAST APIs using websockets to meet specific client requirements, demonstrating expertise in building complex APIs for seamless integration.

Research Assistant | Dr. Edward Gehringer | North Carolina State University May 2023 - Aug 2023

- Led the decoupling of the [Expertiza](#) application, implementing an independent frontend in React and backend API in Ruby on Rails, resulting in improved modularity, scalability, and maintainability.
- Mentored and provided direction to small development teams, conducting code reviews and ensuring adherence to best practices in frontend and backend development.
- Implemented workflows for remote setup of VCL instances using Ansible Playbook and GitHub Actions, simplifying the complex setup process for students.

Software Development Engineer | RIA Advisory Jul 2020 - Mar 2022

- Enhanced “Customer 360 Portal” (RMB) application by improving code quality and resolving multiple bugs to make it more stable and manageable using Java, Angular, Spring Boot, HTML, jQuery, and Oracle Database technology stack.
- Integrated external payment gateway via RESTful APIs, bridging client-server dynamics for the RMB platform.
- Enhanced MySQL database performance by 50% and cut query response times by 60% through strategic implementation of partial and multicolumn indexing, optimizing database queries for improved efficiency.
- Followed customer specific DevOps guidelines employing Bitbucket, Bamboo, GIT, and Jenkins for code management.
- Reduced regression testing times by 90% through the implementation of comprehensive E2E test cases using JUnit.

PROJECTS

Nutanix Provisioning Postgres HA Instances

Evaluated NDB Operator to accommodate Postgres HA framework and added configurable capabilities to fully support HA Postgres provisioning. Created a Postgres HA instance by setting the new parameter in the NDB Custom Resource.

CloudClip, Microservices Deployment and Scaling (AWS Kubernetes cluster, Docker, CI/CD) ([Link](#))

Deployed microservices on AWS Kubernetes cluster, showcasing dynamic scaling, achieving 100% resiliency. Utilized ECS for Spring Boot Microservices, managing diverse profiles (dev, prod), and Docker image publication on Docker Hub and AWS ECR. Engineered AWS Cloud Formation diagram for banking app with an emphasis on security.

Potential Performance Predictor (Python, Sci-kit Learn, Data Analysis, Novel Technique) ([Link](#))

Designed and developed machine-learning models for predicting employee performance and attrition during the hiring process. Utilized existing employees’ performance data to evaluate how new employees with similar attributes would fit into the work environment.

LEADERSHIP AND ACHIEVEMENTS

- AWS certified Cloud Practitioner.
- Treasurer at Electrical and Computer Engineering Department - Graduate Student Association.
- Technical head at ‘Association for Computing Machinery’ and ‘Impetus and Concepts’ organizations.