Krish Shah

Toronto, ON, CA | +1 437 971 3410
LinkedIn | Github | krishshah249@gmail.com

PROFESSIONAL SUMMARY

Skilled professional with 34 months of experience collaborating with esteemed international clients like US Army & Air Force Exchange (AAFES), Fiserv First Data, and Discover Card. Specialized in crafting sophisticated backend web solutions using frameworks like Spring for AAFES. Proficient in end-to-end development and integration of cutting-edge technologies, with a focus on AWS cloud infrastructure. Distinguished for seamlessly integrating technology stacks such as Jenkins and SonarQube for leading financial entities, enhancing automation and quality assurance. Additionally, engaged in enriching work placements at George Brown Canada, exploring advanced realms of artificial intelligence, machine learning, and cloud computing.

SKILLS AND ABILITIES

- Python
- AI / ML
- AWS / Azure
- Jenkins
- Cassandra / SQL
- Java / Spring / J2EE
- SonarQube
- Tableau
- GIT
- Airflow

CERTIFICATIONS AND PUBLICATIONS

- Java SE 6 and 8
- IEEE paper published on Handwriting-Based Personality Prediction using Machine Learning

WORK EXPERIENCE

George Brown Work Placement

- **Worldwide City Guide Web Service** September 2023 – December 2023

  - Increased user engagement by 40% through the development of a user-friendly NodeJS website and RESTful API, providing real-time city information to users worldwide.
  - Enhanced data accuracy by 25% through the integration of OpenWeather and Google Maps APIs, providing up-to-date weather and tourist information for all cities.
  - Achieved 99.99% uptime by deploying the web service across multiple Azure regions, ensuring global accessibility and scalability.
  - Reduced security breaches by 50% through the implementation of Azure Front Door, Web Application Firewall (WAF), and Azure Key Vault, ensuring secure storage and transmission of sensitive data.
  - Improved system performance by 30% through proactive monitoring and scaling using Azure Monitor, AutoScaler, Metrics, Logs, and Alerts.
  - Reduced deployment time by 50% through the implementation of CI/CD pipelines with Azure Repos and Build and Release Pipelines, ensuring efficient integration and deployment across distributed servers.
  - Enhanced security measures by 40% through the integration of Azure App Service Authentication, ensuring secure access to the web service.
  - Achieved 99.99% data availability through the utilization of Azure Cosmos DB, ensuring scalability and availability of city information for users worldwide.

- **Retail Inventory Optimization: Shelf Monitoring and Product Detection** May 2022 – August 2022

  - Designed and implemented a machine learning solution to address the issue of empty shelves detection in retail environments, leveraging advanced Convolutional Neural Networks (CNNs).
  - Led the data collection effort by gathering and meticulously labelling over 100,000 boxes on a diverse dataset comprising of 15,000 high-resolution images of shelves, capturing various angles, lighting conditions, and perspectives to ensure comprehensive training data.
  - Executed rigorous preprocessing of collected images, including resizing to 256 x 256 pixels, conversion to grayscale, and normalization of pixel values between 0 and 1, ensuring standardized input for the machine learning model.
  - Engineered a sophisticated deep learning model architecture, incorporating multiple convolutional layers, a pooling layer, and a fully connected layer, to accurately detect empty shelves within retail environments.
  - Implemented a robust training strategy utilizing 70% of the dataset for model training, 15% for validation, and the remaining 15% for evaluating the model's performance, ensuring comprehensive assessment and optimization of the model.
  - Achieved exceptional model performance with an accuracy rate of 93.7%, accompanied by a precision score of 0.92, a recall score of 0.88, and an impressive F1 score of 0.90, validating the effectiveness and reliability of the developed solution in accurately detecting empty shelves in real-world scenarios.

Senior Software Engineer Java and AWS – Capgemini June 2019 – July 2021

- Led strategic development of a robust Development, Testing, and QA cloud infrastructure on AWS.
- Integrated cloud solutions seamlessly with Jenkins, SonarQube, and Airflow to achieve 30% reduction in deployment time.
- Reduced security incidents by 40% through the implementation of AWS Web Application Firewall (WAF) and Identity and Access Management (IAM) policies.
- Improved server response time by 15% through the optimization of Apache HTTP Server.
- Achieved 99.99% uptime by utilizing AWS dynamic resource allocation and fault tolerance.
- Conducted end-to-end testing and vigilant monitoring for optimal performance.
- Spearheaded implementation of client case studies involving sensitive data within J2EE.
- Increased data security compliance by 30% through the implementation of AES-256 encryption and decryption algorithms in Java JAR files.
- Improved code quality score by 20% through regular code reviews and automated analysis with SonarQube, reducing the number of critical vulnerabilities by 50%.
- Designed and implemented Java Server Pages (JSP) for interactive sales reports.
- Resolved production issues using JUnit test cases for rigorous validation.
- Achieved a 25% reduction in storage costs by optimizing server storage utilization.
- Developed and documented business processes, including flowcharts and architecture diagrams.
- Reduced deployment errors by 60% through the implementation of Jenkins CI/CD pipelines, automating the build, test, and deployment process in the AWS cloud environment.
- Developed Google Airflow DAGs for data synchronization across platforms.

EDUCATION

Post Graduate Certificate in AI, ML and Cloud Computing September 2021 – December 2023
George Brown College, Toronto, ON

Bachelor of Engineering in Information Technology August 2015 – May 2019
University of Mumbai, India