

# Vaibhav Goswami

Portfolio: [bluekap.github.io](https://bluekap.github.io)  
Github: [github.com/bluekap](https://github.com/bluekap)

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## SKILLS SUMMARY

- **Languages:** Python
- **Frameworks:** TensorFlow, Keras, Flask, Scikit-learn, OpenCV
- **Technologies:** Machine Learning, Generative AI, RAG, LLM Integration, AWS DynamoDB, Terraform, Kubernetes, Docker, Sagemaker
- **Databases:** AWS DynamoDB, Data Warehouse like BigQuery / Snowflake
- **Platforms:** Google Cloud Platform (GCP), Amazon Web Services (AWS)

## EXPERIENCE

- Thomson Reuters** Bangalore  
• *Senior Software Engineer* *June 2022 - Present*
- **Leading the Generative AI Platform at Thomson Reuters:** Currently leading a team of 10+ members in developing and maintaining the enterprise-scale Generative AI Platform serving over **20k monthly users**. Led the service from inception to production deployment.
  - Designed and implemented a serverless architecture that enables the platform to scale efficiently and handle high user volumes. Integrated multiple LLM providers including Claude, OpenAI, Gemini, and LLaMA models to provide diverse AI capabilities. The platform hosts the way for users to create multi-step workflows with LLMs and has democratized RAG (Retrieval-Augmented Generation) creation at enterprise scale.
  - **Database Architecture for AI Applications:** Implemented **AWS DynamoDB** as a key component of the platform's data storage solution, optimizing for the high-throughput requirements of AI applications and user interactions.
  - **Machine Learning Model Monitoring and Data Drift Monitoring:** Previously led the ML Model Monitoring and Data Drift Monitoring service as part of the Enterprise AI Platform utilized by 500+ users. The service automatically monitors machine learning model performance over time and raises alerts when model performance degrades.
- HSBC Bank PLC** Hyderabad  
• *Senior Software Engineer* *July 2019 - April 2022*
- Promoted to Senior Software Engineer after 2 years for exceptional performance.
  - **Cloud Migration & DevOps:** Led a cloud migration project to GCP and implemented a Terraform pipeline, reducing deployment errors by over **95%**. Saved **\$5k** annually through infrastructure optimization.
  - **Machine Learning Engineering:** Built an Automated Machine Learning Pipeline on Kubernetes to democratize ML in the organization, automating **90%** of the manual efforts required in deploying a model.
- UST Global** Chennai  
• *Machine Learning Intern* *July 2018 - December 2018*
- **Project Course - Detect Car Damages and Estimate the repair costs using Images:** Created a Mask-RCNN Model to Segment individual Car parts and then performed Image Classification to differentiate between a damaged car part and undamaged with **91% accuracy**.
  - Used Transfer Learning and Image Augmentation with 10,000+ images to train the model.
  - **Impact:** Showcased the project at 'D3+' expo held in Chennai. Got to demonstrate the product to various business clients for their consumption and around 200+ personal feedback and over 10 business client interests.

## EDUCATION

- BITS Pilani** Goa Campus  
• *Bachelor of Engineering(Hons.) - Electronics and Instrumentation* *July 2015 - August 2019*
- Courses: Introduction to Programming, Object Oriented Programming, Software Development for Portable Devices, Cryptography, Digital Image Processing*

## PROJECTS

- **Automatic Sudoku Solver from Image(Python, TensorFlow, Computer Vision):** AI Model to provide solutions to a unsolved Sudoku problem from its image. Built a custom ML model for computer vision with **87% accuracy**. (December'20)
- **Automatic Image Caption Generator (Android Studio, Java, Vision API, NLP):** Developed a mobile application on Android Studio to generate automatic captions to an image. Used Google Cloud Vision API to detect main entities in an image and then applied NLP to predict the best caption to an image.(March'19)

## PROFESSIONAL CERTIFICATIONS

- **AWS:** Developer Associate (December'2022)
- **Google Cloud Platform:** Professional Data Engineer (December'2021)
- **TensorFlow:** TensorFlow Developer Certificate (February'2021)
- **Google Cloud Platform:** Associate Cloud Engineer (September'2020)

## HONORS AND AWARDS

- Pioneer of the Quarter (HSBC) - Oct 2021: Awarded for my exceptional performance in the quarter .
- Circle of Excellence (HSBC) - July 2021: Team Award, for moving the service to live in record time.