



-  [linkedin.com/in/ajeet214/](https://linkedin.com/in/ajeet214/)
-  [github.com/ajeet214](https://github.com/ajeet214)
-  [x.com/ajeet214](https://x.com/ajeet214)
-  [medium.com/@ajeet214](https://medium.com/@ajeet214)
-  [stackoverflow/ajeet-verma](https://stackoverflow/ajeet-verma)

## PERSONAL DETAILS:

- Name **Ajeet Kumar Verma**
- Designation Lead AI/ML Engineer, Data Scientist

## CONTACTS :

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## PROFESSIONAL SUMMARY :

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- An Indian expatriate currently living and working in Vietnam. Skilled as an AI engineer and data scientist with **over 9** years of professional experience in the IT industry, I bring a strong foundation of technical expertise and business understanding to an organization.
- My technical expertise in AI and data science, combined with my knowledge of project management and business analysis, enables me to solve complex problems, design innovative solutions, and drive business growth and operational efficiency.
- I can communicate effectively with both technical and non-technical stakeholders, and I have a proven track record of building strong relationships and delivering successful outcomes.
- Extensive experience across roles, including AI/ML Engineer, Data Scientist, Data Engineer, Python Developer, and Senior Software Engineer, delivering end-to-end expertise in building intelligent, data-driven solutions.
- Highly collaborative and effective in team-oriented environments, contributing to shared goals with strong communication and adaptability.
- Experienced in developing robust backend services using REST APIs with frameworks such as FastAPI, Flask, and similar technologies.
- Experienced in designing and implementing end-to-end pipelines for ETL, Natural Language Processing (NLP), Computer Vision, and Machine Learning (ML) applications.
- Experienced in working within Scrum and Agile frameworks to deliver iterative and collaborative project outcomes.
- Experienced in containerization and orchestration technologies, including Docker and Kubernetes.
- Experience in processing various forms of raw data, such as videos, images, and texts.
- Experienced in designing and developing microservice architectures and API frameworks to support scalable application development.
- Experienced in architecting and developing scalable, end-to-end solutions including chatbots, virtual assistants, and multi-agent systems.

## EDUCATIONAL BACKGROUND :

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- Post Graduate Diploma in Machine Learning and Artificial Intelligence, IIIT Bangalore, India.
- Bachelor of Technology in Electrical Engineering (Hons), Rajasthan Technical University, Kota, India.

## TRAINING & CERTIFICATIONS :

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- AWS Cloud Technology Consultant by Coursera
- AI Product Manager Nanodegree by Udacity
- Generative AI Nanodegree by Udacity
- Generative AI with Diffusion Models by NVIDIA
- Generative AI with Large Language Models by Coursera
- Machine Learning DevOps Engineer Nanodegree by Udacity
- Generative Adversarial Networks (GANs) by Coursera
- Data Scientist Nanodegree by Udacity
- Computer Vision Nanodegree by Udacity
- Microsoft Certified Azure AI Engineer Associate
- Professional Certification in Project Management by Google
- TensorFlow Developer Professional Certification by DeepLearning.AI
- Data Analysis Using Pyspark by Coursera
- Specialized Models Time Series and Survival by Coursera
- Data Engineering and Machine Learning using Spark by IBM
- Hands-On Introduction to Apache Airflow by Udemy
- Style Transfer using GANs
- Version Control with Git by Atlassian
- Agile with Atlassian Jira
- OPIc level IM (Korean) issued by ACTFL

## TECHNICAL EXPERTISE & SKILLS :

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- **Programming:** Python, R, Ruby
- **Database:** MySQL, MongoDB, Elastic Search
- **Web scraping:** Scrapy, Selenium, BeautifulSoup, Requests, Lxml, etc.
- **Machine learning/deep learning framework:** Scikit-learn, TensorFlow, Keras, PyTorch
- **Version control tools:** Git, Gitlab, Bitbucket
- **Data analytics and processing tools:** NumPy, SciPy, Pandas, Polars, PySpark
- **Data Visualization tools:** Matplotlib, Seaborn, Plotly, Kibana
- **Image processing tools:** OpenCV, PIL, Scikit-Image
- **DevOps tools:** Docker, Terraform, Kubernetes
- **MLOps tools:** mlflow
- **CI/CD tools:** GitHub Actions, GitLab CI/CD

- Restful API, FastAPI, Flask, Regex, Apache Spark, Apache Airflow, Elastic Stack (EFK), Databricks Mosaic AI, Microsoft Power Automate, Copilot Studio, Azure AI Foundry, n8n
- Computer Vision, Recommendation System, Natural Language Processing (NLP), Optical Character Recognition (OCR), and Time-Series Analysis (Statsmodels).
- **Generative AI**, Large Language Models, LangChain, LangGraph, LlamaIndex, CrewAI, Agno, Ollama, Hugging Face, Vector Stores, Vector Embedding, Prompt Engineering, RAGs, Agents, MCP Protocol, A2A Protocol, etc.
- **Cloud Platforms**: AWS, Google Cloud, Azure

## LANGUAGE SKILLS :

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- Fluent in **English**
- Intermediate in **Korean**
- Native in **Hindi**
- Elementary in **Vietnamese**

## ACHIEVEMENTS :

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- Won Gold medal in the “**LTS x AIC Hanoi LLM Hackathon 2023**” GenAI hackathon organized in collaboration with FSOF and LTI Japan.
- Received the Excellent Performance Award from the **Covestro AI** customer.

## PROFESSIONAL EXPERIENCE :

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**Feb 2024 – present**

**Lead AI Engineer** for **ProcureBot (Covestro AI)** project in **FPT Software**, Hanoi, Vietnam.

### Project Description:

- ProcureBot is an AI-powered virtual assistant designed to assist with procurement-related inquiries and tasks. ProcureBot leverages natural language processing and GenAI to understand and respond to user queries, provide information about products and services, assist with order placement, track orders, and offer support throughout the procurement process. It aims to streamline and simplify the procurement experience for Covestro's customers by providing quick and accurate responses to their inquiries.

**Team size: 10**

### Responsibilities:

- Understand and capture the key business requirements of the Stakeholder/client.
- Architect and oversee an end-to-end RAG system that ingests and indexes the knowledge base,
- Enhance the generation aspect of the RAG system to produce more accurate and coherent responses.
- Stay informed about the latest developments in LLMs and GenAI tech. Look for new ideas and improvements to keep the project ahead of the curve.

- Work on improving the efficiency and effectiveness of the retrieval component of the RAG system.
- Collaborating with cross-functional teams to align the ProcureBot's development roadmap with Covestro's strategic objectives and business priorities.
- Craft and optimize prompts to maximize the performance and accuracy of LLMs and agents.
- Designing, implementing, and optimizing multi-agent systems using LLMs and GenAI technologies.

#### Technologies used:

Python, Large Language Models, RAG, AWS, LangChain, Streamlit, GitLab, Vector Store, and Embeddings, mlflow

#### **Jul 2023 – Jan 2024**

Senior AI Engineer for ICon (Covestro AI) project in **FPT Software**, Hanoi, Vietnam.

#### Project Description

- The primary objective of the ICon project is to establish a robust and user-friendly platform that enables natural language-based access to Covestro's business data, with a specific focus on Sales data sourced from SAP BW. The project aims to:
  - Facilitate Natural Language Interaction
  - Enable Descriptive Data Reporting
  - Enhance Decision-Making

Team size: 09

#### Responsibilities:

- Undertake extensive research to identify the most appropriate AI algorithms and tools for the project, implement them effectively, and optimize their performance to achieve the desired outcomes.
- Understand and capture the key business requirements of the Stakeholder/client.
- Collaborate closely with cross-functional teams, including data engineers, data scientists, software developers, and business stakeholders, to align the AI components with overall project goals and objectives.
- Stay updated with the latest developments in LLMs and conversational AI technologies. Explore innovative solutions and enhancements to keep the project at the forefront of industry standards.
- Model Selection and Configuration
- Large Language Models Fine-tuning and Training

#### Technologies used:

Python, Large Language Models, MySQL, AWS, LangChain, GitLab, Streamlit

#### **May 2022 – June 2023**

Senior AI Engineer for the AkaCam project in **FPT Software**, Quy Nhon, Vietnam.

#### Project Description

- AkaCam is a project that uses image data to analyze human behavior intelligently and is powered by AI

- Object detection
- Object classification
- Object tracking
- Object re-identification

**Team size: 19**

**Responsibilities:**

- Undertake extensive research to identify the most appropriate AI algorithms and tools for the project, implement them effectively, and optimize their performance to achieve the desired outcomes.
- Understand and capture the key business requirements of the Stakeholder/client.
- Conduct a thorough examination of the current code base to gain a comprehensive understanding of the system's architecture, design patterns, and programming practices.
- Enhance the overall system performance by refactoring the AI services, which involves optimizing code, improving algorithms, and addressing any technical debt.
- Tailor the existing packages to meet specific client requirements by implementing new features, customizing existing functionalities, and integrating additional logic as necessary.
- Ensure that the software is efficient, maintainable, and scalable by adhering to software engineering best practices, such as modularization, documentation, and testing.
- Collaborate with cross-functional teams, including product managers, software developers, and quality assurance engineers, to ensure that the AI services meet the product's requirements and specifications.
- Continuously monitor and evaluate the system's performance, identify any bottlenecks or issues, and implement necessary changes to optimize performance and improve the user experience.

**Technologies used:**

Python, Deep learning algorithms, Data processing, Data Visualization, Computer Vision

**Nov 2021 – June 2022**

**Machine Learning Engineer** for the **GoToro** project in **FPT Software**, Quy Nhon, Vietnam.

**Project Description**

Build an Intelligent Job portal service as a Self-managed for GoToro Clients. The goal is to help high-volume recruitment industries accelerate the hiring processes and increase the efficiency of recruitment campaigns by infusing Analytics and Artificial intelligence.

**Team size: 26**

**Responsibilities:**

- Engage with the Stakeholders and clients to understand and capture the business goals and translate business problems into an analytical framework.
- Research and implement appropriate ML algorithms and tools.

- Select appropriate datasets and data representation methods and build the ETL pipeline.
- Collaborate, help, and exchange knowledge with the team members, peers, and leadership at QAI to foster a community-working environment.
- Implement the time-series ML algorithm for bidding forecast and budget allocation to the publishers on the job boards.

#### **Technologies used:**

Python, ML algorithms, Data processing, Data visualization, Git, MySQL, MongoDB, Time-series Analysis

#### **Oct 2020 – Oct 2021**

**AI (Computer Vision) Engineer** for **Smart City** project in **Viettel**, Hanoi, Vietnam.

#### **Project Description**

- The project objective revolves around solving the manual inspection problem involved in checking, monitoring, and reporting the quality of various components and pieces of equipment installed/placed at the telecom sub-stations and automating the whole process using AI.
- Developing machine learning and deep learning models to perform visual recognition tasks, such as object classification, segmentation, and detection.
- Optical character recognition

#### **Team size: 14**

#### **Responsibilities:**

- Part of the AI team majorly focused on computer vision projects.
- Training machine learning and deep learning models to perform visual recognition tasks, such as classification, segmentation, and detection.
- Optimizing deep neural networks and the related preprocessing/post-processing code.
- Reading research papers, implementation, and their incorporation into the existing ecosystem.
- Responsible for automation of manual inspection tasks such as equipment validation, fault detection, structural abnormalities, and anomaly detection using deep learning.
- Worked on computer vision algorithms and image processing, including rule-based image processing techniques and deep learning-based algorithms.
- Utilize annotation tools for accurately annotating images and videos for tasks such as object detection, segmentation, and classification.
- Design and develop a dashboard for AI service log monitoring and analysis utilizing the EFK Stack.
- Create the entire ETL pipeline for ingesting, transforming, and loading logs into the dashboard.
- Responsible for creating different visualizations to analyze and monitor the logs to derive business value efficiently.
- Implement the role-based access control for the logging stack.
- Responsible for developing and deploying the Pipeline.

**Technologies used:**

Python, PyTorch, Machine Learning, Deep Learning, Computer Vision, Image Processing, Docker, OpenCV, FastAPI, OCR, Recommendation System, Ruby, Elasticsearch, Fluentd, Kibana, Data Processing

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**Jun 2020 – Oct 2020**

**Senior Software Engineer** for **Viavi** project in **Altran (Capgemini Engineering)**, Gurugram, India.

**Project Description:**

Maintain, customize, and improve the automation framework for network test and measurement, network assurance, and optical solutions.

**Team size: 12**

**Responsibilities:**

- Communicate and understand the business requirements with customers.
- Review the existing code base and refactor or optimize for better performance.
- Develop automation scripts for 4G and 5G network device testing and monitoring.

**Technologies used:**

Python, Restful API, Flask, MySQL, PyTest, Git

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**Sep 2019 – Mar 2020**

**Technical Consultant, Data Engineer** for **Innowatts** project in **Accolite Digital**, Gurugram, India.

**Project Description**

Innowatts' SaaS platform transforms how energy providers understand and serve their customers. Using AI and learnings from more than 45 million global meters to help energy retailers, utilities, and grid operators unlock meter-level data, understand their customers, and make business processes automated and smarter.

**Team size: 11**

**Responsibilities:**

- Engage with clients to gather requirements and provide them with solutions that are tailored to their specific needs and that meet their expectations.
- Automating the data pipelines with Airflow.
- Workflow Orchestration using directed acyclic graphs (DAGs) to coordinate tasks and dependencies.
- Responsible for creating maintainable, versioned, testable, and configurable DAGs.
- Coordinate with internal teams to understand client requirements and provide technical solutions.
- Create logic for Data processing and computations.

- Extracts the data from different RDBMS source systems, then transforms the data (like applying calculations, concatenations, etc.), and finally loads the data into the Data Warehouse system.

#### **Technologies used:**

Python, AWS (S3, Athena, EMR), Apache Airflow, Git, MySQL, Pyspark

### **Jan 2018 – Sep 2019**

**Python Developer, Web Scraper** for **WebMine** project in **SecNinjaz Technologies LLP**, India.

#### **Project Description**

WebMine is a revolutionary & state-of-the-art OSINT (Open-source intelligence) -based product utilizing AI & ML to produce virtual Intelligence and gather information from diverse sources, including search engines, social media platforms, the dark web, etc.

**Team size: 19**

#### **Responsibilities:**

- Responsible for developing several microservice architectures.
- Responsible for gathering data from various platforms (social media, search engines, etc.) through either APIs or web scraping and creating APIs to integrate with the existing micro-services.
- Build reusable code and libraries for future use.
- Focus on test-driven development and create code reviews.
- Run and monitor performance tests on new and existing software to correct mistakes, isolate areas for improvement, and debug.
- Identify, leverage, and successfully evangelize opportunities to improve engineering productivity.
- Collaboration with team members to establish back-end conventions, principles, and patterns.
- Performs technical analysis for the development of new features.

#### **Technologies used:**

Python, Selenium, Docker, MongoDB, MySQL, Flask, Git, Restful API, PyTest, Scrapy, Elasticsearch, Kibana, BeautifulSoup, Requests, Urllib3, Regex, GitLab CI/CD

### **Jul 2015 – Dec 2017**

**Python Developer, ML Trainer** for **Forsk** project in **Seedlogix Resources India Pvt. Ltd**, Jaipur, India.

#### **Project Description:**

Forsk, with a mission to empower people with top-quality educational programs in the domain of software engineering and information technology and helps university students fill the industry gap by improving skills in coding and computer science fundamentals and secure quality careers in the industry.



**Team size: 8**

**Responsibilities:**

- Responsible for developing and delivering lectures, workshops, and other learning materials on a variety of topics related to ML and Python.
- Responsible for designing and implementing assessments and other activities to help students learn and apply their knowledge.
- Involved in creating quizzes, exams, projects, and other assignments, as well as providing feedback and support to students.
- Research and work on data science and machine learning projects.
- Study and transform data science prototypes.
- Research and implement appropriate ML algorithms and tools.
- Select appropriate datasets and data representation methods.
- Run machine learning tests and experiments.
- Perform statistical analysis and fine-tuning using test results.
- Stay up-to-date on the latest developments in the field and adapt the teaching materials and approaches to reflect these developments.

**Technologies used:**

Python, Machine Learning Algorithms, TensorFlow, MySQL, Flask, Git, HTML, CSS, C, C++, Restful API, Web scraping, OpenCV, Image processing, Data processing