#### Avi Chauhan

## Software Engineer/Data Analyst/Software Developer

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#### **Internship Details**

Company Name: Silent Infotech Pvt Ltd, Ahmedabad, India

Duration: - 08-01-2024 to 30-04-2024

- Worked with Transformer architectures and Large Language Models (LLMs) for fine-tuning and optimizing AI applications, including Retrieval-Augmented Generation (RAG) for handling unstructured data.
- Gained experience in model optimization and deployment using ONNX and TensorFlow Lite, implementing quantization techniques for efficient inference.
- Developed end-to-end machine learning pipelines, integrating data preprocessing, model training, evaluation, and deployment while ensuring scalability and performance optimization.

### Company Name: Opus Technologies, Surat, India

Duration: - 01-06-2023 to 30-06-2023

- Worked as Remote Internship Trainee on Machine Learning projects.
- Utilized and used Pandas, Matplotlib, Scikit-Learn, NumPy, TensorFlow and Keras libraries on assigned modules of different projects.
- Developed, customized and fine-tuned CNN models in classification of plant leaf diseases and lung cancer detection. Performed data preprocessing, model training and evaluation of models to achieve high accuracy.

#### **Academic Projects**

Project Name: Online Exam Monitoring System

- Led as a Scrum Leader in Software Engineering to develop an innovative Online Monitoring Exam System, leveraging Computer Vision, React.js, and Express.js to enhance exam integrity.
- Implemented multi-threaded processing to enable real-time video analysis and academic misconduct detection in parallel with user interaction logging, ensuring smooth and efficient monitoring for both students and instructors.

Project Name: Attendance System

- Developed an intelligent Attendance System using Computer Vision and face recognition, seamlessly integrating it with React.js for automated and accurate user identification.
- Engineered a robust tracking mechanism to enhance efficiency and eliminate manual attendance processes, ensuring real-time authentication and reliability.

Project Name: Machine Learning Model Development for Predictive Analytics

- Developed multiple Machine Learning models for predictive analytics, including house price estimation, diabetes prediction, and fake news detection, leveraging Logistic Regression, Support Vector Machines, and XGBoost.
- Implemented advanced data preprocessing, feature engineering, and model optimization techniques to enhance accuracy and performance across diverse datasets.

Project Name: Game Development with Unity and C#

- Developed multiple Machine Learning models for predictive analytics, including house price estimation, diabetes prediction, and fake news detection, leveraging Logistic Regression, Support Vector Machines, and XGBoost.
- Designed and developed an App using React Native for taking Notes. Used React Native for building a app.

#### Skills

- Programming Languages: Python, Java, C, C++, shell scripting & Linux
- Machine Learning: Regression, Classification, Clustering, Decision Tree, Data Preprocessing, Data pipelines, Model Training and Evaluation, MLOps and MLflow
- Deep Learning & Generative AI: PyTorch, TensorFlow, Keras, CNN Model Development, LLM.
- Natural Language Processing (NLP): Text Preprocessing, Named Entity Recognition (NER), Sentiment Analysis, Transformers, Hugging Face
- Data Analysis & Visualization: Pandas, NumPy, Matplotlib, Scikit-Learn, Power BI
- Computer Vision: Customizing and Fine-Tuning Models for Image Classification
- Web Services & Frameworks: Human-Computer Interaction, JavaScript, HTML/HTML5, CSS/CSS3, Ajax, React.js, Express.js, Node.js, Visual Studio Code, Redux
- Tools: Git, GitHub, Microsoft Office Suite, Docker, Open-source tools
- AWS Services :- Amazon SageMaker, AWS Lambda, Amazon EC2, Amazon S3, Amazon DynamoDB, Amazon CloudWatch, Simple Email Service, EventBridge
- Algorithms & Optimization
- Database System and Database Management: MySQL, SQL Server
- Soft Skills: Critical Thinking, Communication Skills, Presentation Skills, Problem Solving.

#### Education

Master of Science, Computer and Information Sciences University at Albany, Albany, NY, USA Aug 2024 - Continue

# Certifications

- AWS: Amazon Bedrock Getting Started June 2025 AWS: Exploring AI Use Cases and Applications June 2025
- AWS: Fundamentals of ML & AI June 2025