Abhay Nihal Bhardwaj Mettu

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EDUCATION

Bachelors Of Science in Computer Science

University Of Wisconsin - Madison • Madison, WI • 2025
Member of Data Science Club and Cybersecurity Club

EXPERIENCE

Intern

Cloudtaru **May 2023 - August 2023, Hyderabad,TS,India**

• Developed a Campaign Management System using Django, enabling efficient email and SMS campaign creation and management. Implemented campaign tracking for detailed insights on recipients and campaign performance.
• Designed a customizable template system for campaign content. Integrated SMTP for email campaigns and collaborated with third-party SMS providers. Collaborated with team members to troubleshoot and enhance system functionality.
• Increased lead generation by 203%, managed up to 400 campaigns simultaneously, and reduced operations costs by 45%.

PERSONAL PROJECTS

Real-time Financial Data Analysis Platform

• Technologies Used:C++, Boost.Asio, WebSockets, SQLite
• Developed a platform for real-time streaming and analysis of financial data. Utilized Boost.Asio for asynchronous data capture and SQLite for efficient historical data storage. Designed algorithms for financial metric calculation, trend analysis, and predictive insights. Enabled live data visualization and alerts via WebSockets to a user interface.

AI-driven Knowledge Management System

• Technologies Used: Python, TensorFlow, Elasticsearch, Natural Language Tool kit(NLTK)
• Developed an enterprise-level system that indexes diverse content types for semantic search capabilities. Utilized TensorFlow for content summarization and real-time Q&A features. Elasticsearch facilitated efficient indexing and searching capabilities. NLTK aided in text processing and sentiment analysis.

Serverless Computing Framework

• Technologies Used: Go, Docker, Kubernetes, RabbitMQ
• Built a serverless computing platform inspired by AWS Lambda. Developed functions-as-a-service(FaaS) where code is executed in response to events. Utilized Docker for function isolation and Kubernetes for orchestration. Integrated RabbitMQ for event-driven architecture and asynchronous task processing.

Personalized Content Recommendation Engine

• Technologies Used: Python, TensorFlow, Flask, MongoDB
• Developed a content recommendation system using machine learning. Utilized collaborative filtering techniques with TensorFlow to suggest personalized content for users, and stored user profiles and content metadata in MongoDB.

TECHNICAL STRENGTHS

- **Programming: Java (Spring Boot), Python (Django, Flask), C/C++ (STL), Advanced Algorithms, Efficient Data Structures**
- **Web Development: HTML5/CSS3, JavaScript, React, Node.js**
- **Database: SQL(PostgreSQL,MySQL), NoSQL(MongoDB, Cassandra), Optimization & Scaling**
- **Computer Science: Advanced OS Concepts, Network Architectures, Cybersecurity Protocols**
- **Frameworks: TensorFlow, PyTorch, Redux, Express.js, Hadoop, Spark**
- **Mathematics: Advanced Discrete Math, Predictive Statistics, Multivariable Calculus**
- **Data Science: Python-based ETL, Advanced Visualization, Predictive Modeling**
- **Specializations: DeepLearning, ML Pipelines, Cloud-based DevOps(AWS, GCP)**