



# YASHWANTH TADAKAMALLA

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🌐 [Yashwanth](#) 📁 [Portfolio](#) 📍 Eschborn, Hessen, Germany

## Work Experience

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### Eurex Clearing AG

Mar 2024 – Present

*Analyst (Intern)*

*Eschborn, Germany*

- Leading the implementation of a Client Performance Management tool, which incorporates Outlier Detection and Trend Analytics features, to provide deeper business insights and enhance client understanding.
- Created a comprehensive billing fee dashboard using Power BI, facilitating easier billing analysis by incorporating multiple KPIs and client-specific metrics.
- Implemented revenue prediction models and inter-month analysis tools to enhance the team's forecasting and analytical capabilities.
- Developed and managed high-stakes presentations for Business Review, Supervisory Board, and Executive Board meetings, collaborating with various departments for insights.
- Conducted counterparty and client-specific analyses, contributing to strategic decision-making.

### Ernst & Young

Nov 2021 – July 2023

*Technology Consultant*

*Düsseldorf, Germany*

- Conducted exploratory data analysis and contributed to the training and implementation of a BERT model for job requirements and resume matching.
- Conducted meticulous data labeling and cleaning, elevating data quality and significantly enhancing the accuracy of subsequent analyses and models.
- Designed and deployed a Chatbot using Power Virtual Agent.
- Demonstrated expertise in AI through various projects, including creating an automatic code-commenting system and an interview bot utilizing the OpenAI API.
- Ensured comprehensive project documentation, documenting all software development processes and results for future reference and knowledge sharing.

## Projects

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### Master Thesis: Reconfigurable FPGA Layout Generation | *Python, Optimization algorithms*

- Developed and implemented novel Simulated Annealing and Evolutionary Strategy algorithms to efficiently solve the layout generation problem based on micro-slots.
- Conducted an extensive comparative analysis of the performance and effectiveness of SA and ES algorithms in generating optimal layouts.
- Conducted comparative analysis of SA and ES algorithms against Heuristic and Optimal solutions.

### Client Performance Management | *Time Series Analysis, Data Analysis, Automation, Visualization*

- Developed and implemented outlier and trend analysis tools using moving averages and standard deviation, enabling faster and more accurate client performance insights.
- Reduced reaction time for identifying market trends and outliers from 1-2 months to a weekly and daily basis, significantly enhancing proactive decision-making.
- Created a user-friendly UI with Streamlit, facilitating intuitive, real-time interaction and analysis through Visual Studio Code for a seamless experience.
- Enhanced client performance management by implementing comparative trend analysis using non-overlapping moving averages, improving the identification of evolving market trends and client dynamics.

## Revenue Management Dashboard | *PowerBI, Financial Data Analysis, KPI Development*

- Developed an automated billing fee dashboard in Power BI to integrate monthly and daily billing data, enabling real-time financial analysis.
- Conducted deeper data analysis to uncover billing patterns and outliers, enhancing decision-making for finance and management teams.
- Optimized data flows and automated report generation, reducing manual processing and improving reporting efficiency by over 50%.

## AskyourDocAI | *SQL, Python, RAG, Prompt Engineering, LangChain, OpenAI, VectorDB, LLM*

- Enhanced document search capabilities using advanced Large Language Models (LLMs) including Mistral 7B, LLaMA 2 7B, and OpenAI models.
- Implemented RAG techniques to improve the accuracy and relevance of search results.
- Developed sophisticated prompt engineering methods to optimize the performance of LLMs in various search scenarios.
- Utilized modern databases such as Pinecone and ChromoDB for efficient storage and retrieval of document embeddings.

## Interview Bot: AI-driven Interview Process | *Python, Prompt Engineering, Streamlit, API*

- Applied advanced prompt engineering techniques to optimize Interview Bot for contextually relevant interview questions.
- Seamlessly integrated the GPT API as the project's natural language generation engine, enabling dynamic and personalized question generation based on job descriptions.
- Employed the GPT API to assess user responses against job descriptions, facilitating real-time feedback and suitability evaluations.

## Semantic Matching with German BERT for CV AFO Matching | *Python, NLP, ETL, Pandas*

- Developed CV matching application, utilizing semantic matching with a German BERT model for effective job requirement matching.
- Conducted exploratory data analysis and ensured precise data cleaning and model training.

## Education

### University of Paderborn

**2019 – 2023**

*Master of Science in Computer Science — Majors: Intelligence and Data*

*Paderborn, Germany*

### Lovely Professional University

**2015 – 2019**

*Bachelor of Technology in Computer Science and Engineering*

*Punjab, India*

## Technical Skills

**Programming & Scripting:** Python, R, SQL, Scala, HTML, CSS, Flask, Streamlit

**Data Science, Machine Learning & AI:** Time Series Analysis, Computational Argumentation, NLP (BERT, spaCy), Large Language Models (LLMs), OpenAI, Data Mining, Data Modeling, Data Pre-processing, Data Structures and Algorithms, Image Classification, Exploratory Data Analysis (EDA), Pandas, Numpy, PyTorch, TensorFlow, Scikit-learn, Keras, LangChain

**Data Engineering & Big Data Technologies:** Apache Spark, Hadoop, Databricks, Microsoft Azure, Google Cloud, Docker, BigQuery, DynamoDB, Data Lake, ETL

**Data Visualization & Business Intelligence:** Power BI, Tableau, SAP Analytics Cloud, DAX, PowerApps, Dashboard Creation, Matplotlib, Seaborn

**Project Management & General Tools:** CI/CD, Agile Project Management, MS Office, MS Excel, Git, Jupyter Notebook

## Languages

- German – Intermediate
- English – Fluent