



# YASHWANTH TADAKAMALLA

☎ +49 17647603884 ✉ [yashwanthtadakamalla@gmail.com](mailto:yashwanthtadakamalla@gmail.com) in [Yashwanth Tadakamalla](#)

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

## Work Experience

### Eurex Clearing AG

Mar 2024 – Present

*Intern Analytics and Pricing*

*Eschborn, Germany*

- 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.
- Leading the implementation of a Client Performance Management tool to deliver deeper business insights and optimize client understanding.

### Ernst & Young

Nov 2021 – July 2023

*Technology Consultant Intern*

*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

**AskyourDocAI** | *Python, Prompt Engineering, LangChain, OpenAI, VectorDB, LLM*

March 2024

- 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.

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

May 2023

- 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.

**Comment Your Code:** | *Python, Prompt Engineering, API* **June 2023**

- Utilized prompt engineering to prompt the GPT API to create explanatory comments above functions within the uploaded .py files. This automation significantly enhances code documentation and readability.
- The chatbot's automated comment generation contributes to code quality by ensuring clear and consistent documentation of function purpose and usage, fostering better code maintenance and team collaboration.

**Interview Bot: AI-driven Interview Process** | *Python, Prompt Engineering, Streamlit, API* **June 2023**

- 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.

**Interactive Sales Dashboard** | *PowerBI, SAC* **May 2023**

- Identified key performance indicators (KPIs) relevant to sales, such as revenue, sales growth, customer acquisition, and product performance.
- Designed an intuitive and visually appealing dashboard layout, ensuring easy navigation and data interpretation.
- Implemented interactive filters and slicers to allow users to customize the dashboard view based on specific criteria.

**Semantic Matching with German BERT for CV AFO Matching** | *Python, NLP, EDA* **June 2022**

- Led CV matching application development, 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.

**CV- Named Entity Recognition (NER)** | *Python, NLP, Data Labelling, Data Modelling* **January 2022**

- Developed an advanced system using Spacy and NLTK for accurate Named Entity Recognition (NER) in resumes, facilitating efficient skills and role categorization.
- Led comprehensive data cleaning and precise text labeling, ensuring high-quality input for the system.

## Education

**Paderborn University**

**2019 – 2023**

*Informatic Master*

*Paderborn, NRW, Germany*

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|-----------------------------------|------------------------------|----------------------------------|
| • Interactive Data Visualization  | • High-Performance Computing | • Design and Code analysis       |
| • Model-Based Systems Engineering | • Machine Learning           | • Advanced Computer Architecture |
|                                   | • Software Quality Assurance |                                  |

## Technical Skills

**Programming Languages:** Python, R, SQL, Scala

**Tools:** Power BI, Power Query, Tableau, BigQuery, SAP Analytics Cloud, CI/CD, PowerApps, MS Office, MS Excel, Git, Apache Spark, Hadoop, Big Data tools, Microsoft Azure, Google Cloud, Streamlit, Docker, Agile Project Management, Jupyter Notebook

**Machine Learning:** Time Series Analysis, Computational Argumentation, NLP language models (BERT, spaCy), Large Language Models (LLM), OpenAI, Data Lake, Pandas, Numpy, Pytorch, Tensorflow, Scikit - learn, Keras, LangChain

**Data Analysis and Visualization:** Data Mining, Data Modeling, Data Pre-processing, Image Classification, Exploratory Data Analysis (EDA), Dashboard Creation, Matplotlib, Seaborn

**Web Development:** HTML, CSS, Flask, Streamlit

## Languages

- German – Intermediate
- English – Fluent