

WORK EXPERIENCE

- Carl Zeiss AG:** Data Engineer July 2022- Current
- **Master Data Product**
 - Led the development of **Zeiss Master Data** product across **7 Business Units** and **15 countries** leading to streamlined data availability and consistency
 - Generated **€850,000** in revenue by building an ETL pipeline solution using **databricks** with unity catalog which led to acquisition of over **30 customer**
 - Utilized **dbt** for data transformations by defining major transformations in the **models** and putting reusable code in **macros** and defined **tests** in schema
 - Setup **CI/CD pipeline** for auto-deploying schema changes to unity catalog and define databricks pipeline for data ingestion and dbt transformation task
 - **AI-MCP (Model Context Protocol)**
 - Led development of the Model Context Protocol standardizing AI-tool interactions and enabling scalable, secure contextual data access across systems
 - Saved **60%** in data retrieval and integration time by developing the Model Context Protocol to standardize AI-data interactions across **15+ products**
 - Reduced **access management time by 60%** by deploying Azure Entra ID authentication, unifying and securing identity workflows across **15+ products**
 - **Zeiss Global Customer Dashboard**
 - Developed the business dashboard for Zeiss Global Customer Center, showcasing more than **30 business metrics** to global stakeholder and **Zeiss CFO**
 - Engineered a reduction of **30+ hours per week** by developing **10+ Function Apps** for Zeiss Global Customer Center acquiring **115** business customers
 - **Zeiss Cloud Environment (eVA 3.0)**
 - Reduced resource deployment time by **over 40%** for **20+** data products by deploying resources through **terraform** scripts leading to a cleaner codebase
 - Led the creation of eVA 3.0 data platform leading to a **scalable** and **distributed** solution by building a **mesh architecture** with Data Products as nodes

- Regiocom Netzdienste:** Data Analyst September 2021- February 2022
- **Data processing and Visualisation**
 - Improved energy demand prediction by **22%** by building a robust data processing pipeline and data modeling on more than **90** dimensions using **PCA**
 - Generated **interactive visualisation** graphs for the dashboard and compared it to real time data and past forecasts using **Seaborn** and **Matplotlib**
 - **Optical Character Recognition**
 - Achieved an accuracy of **96.73%** on **handwriting recognition** for digital cataloging of manual energy readings and reporting using **OpenCV** and **Keras**
 - Implemented a **RNN** based model using **TensorFlow** library and trained the model on different handwriting data samples with and without text separation

- Deloitte Risk and Financial Advisory:** Data Analyst January 2018- September 2019
- **Data Analysis**
 - Generated revenue of **\$10M** by performing **RCA** on client's claims analytics data, helping identify risk and underperforming regions saving **2%** of cost
 - **SQL Distributed Databases**
 - Reduced latency by **1.2%** for dynamic data loading over a **distributed database** system by **fragmenting** the data over different nodes across the servers
 - **VBA Automation**
 - Reduced monthly **error rate** by up to **80%** by implementing a **VBA** based automation in **report generation** and **data visualisation** using Excel **Macros**
 - Awarded client appreciation award for reducing the anomaly reporting time by **91.6%** by automating data retrieval, processing, and reporting in **3 minutes**

EDUCATION

- Otto-Von-Guericke University:** MSc. Data and Knowledge Engineering October 2019- July 2022
- **Computer Vision Research**
 - Deepfake detection:
 - Achieved accuracy of **93.26%** in **deepfake** video detection using a multimodal approach combining **teeth detection** and **lip-audio synchronization**
 - Unsupervised Image Registration:
 - Achieved a **Jaccard coefficient** of **91.44** and **Dice score** of **93.27** between fixed and moved image by training a deep model based on **VoxelMorph**
 - **Generative Adversarial Networks (GANs)**
 - Generated **200+** fingerprints with **no artefact detection** rate of **97.83%** with and without backgrounds using **StyleGAN** using its **style transfer** property
 - Trained the discriminator on real and Anguli generated images using the **PyTorch** library and tweaked the **noise vector** for better training and generator

- Chandigarh University:** Bachelor of Engineering | GPA 8.52 | Top 1% of Graduates August 2014- May 2018
- Reduced time for question paper generation for exams by **40%** by building a **Java** application for university, integrating with **SQL** database over the network

KEY SKILLS AND CERTIFICATIONS

- English (Bilingual), German (Fluent), Hindi (Native)
- Databricks, dbt, Azure Function Apps, Python, Azure DevOps, Explainable AI, SQL(MySQL, ORACLE, DB2), NoSQL(MongoDB), Agile, Git
- Build Basic Generative Adversarial Networks, Data Science Foundations, Big Data Foundations

EXTRA-CURRICULAR ACTIVITIES

- Social Impact**
- Established a **micro-enterprise for women** and collaborated with local Anganwadi centres to make and sell breads in rural district of Sheohar, Bihar, India