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| **Jibran Shahid**  **Expert Engineer in Data Analysis and AI Enthusiat**  **Paul-Lincke Str.9, 38442, Wolfsburg | +49 (0) 176 355 95 366**  **E-Mail:** [**jibranshahid91@gmail.com**](mailto:jibranshahid91@gmail.com)  **Profile:** [**LinkedIn**](https://www.linkedin.com/in/jibran-shahid-21332b49/)**,** [**Xing**](https://www.xing.com/profile/Jibran_Shahid4/cv)  **Driving License: Class A (Motorcycle) und B (Car)**  **Nationality: German**  **Date and Place of Birth: 15.01.1991, Pakistan**  **Guiding Principle**  ***Self-taught individuals are driven by a relentless curiosity and practical experience. They bring an innovative mindset to solving problems, learning directly from real-world challenges rather than textbooks.*** | **A person in a suit  Description automatically generated** |
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**AI Projects**

**1. Jibran Shahid - CV Chatbot**  
Developed an intelligent chatbot using Streamlit and hosted on Streamlit's platform, designed to answer questions specifically related to Jibran Shahid’s professional background, skills, and project experiences. The bot is programmed to retrieve structured information about past roles, technical proficiencies, and key projects in a conversational manner. This project showcases an innovative approach to presenting a resume interactively, allowing potential employers and collaborators to engage with the information in a more dynamic way. Check it out at <https://jibranshahid.streamlit.app/>.

**2. LiGA GPT Assistant Chatbot**  
This AI-driven assistant, built on Streamlit and hosted on Render.com, supports expats in Germany by answering questions on essential topics such as insurance, taxes, and mobile services. The chatbot is deeply integrated with 'liveingermany.de,' using hyperlinks and blog post recommendations to guide users toward comprehensive resources on these topics. The bot draws on a robust language model trained for conversational understanding, delivering a highly personalized user experience. LiGa not only provides immediate answers but also promotes self-guided learning by recommending relevant articles, creating a seamless, value-added experience that encourages users to explore and stay informed.

**3. Automated Social Media Video Creation with DALL-E and Python**  
This project involves a sophisticated Python-based automation system for social media content creation and publishing. Utilizing DALL-E for visual content and a text-to-speech (TTS) engine for narration, the system generates engaging videos with synchronized subtitles. Videos are crafted for platforms such as Facebook, Instagram, X, YouTube, and TikTok, tailored for audience engagement across various social channels. Content is dynamically pulled through the Google Sheets API, where topics, descriptions, and other inputs are updated for efficient social media management. This process greatly reduces manual work, automating video production and publication with high-quality visuals and sound, making it ideal for consistent, branded content output.

**4. Automated Blogging and SEO Optimization**  
This project features a comprehensive solution for automated content optimization and republishing to enhance SEO. Leveraging the OpenAI API along with the WordPress REST API, the bot reviews existing blog posts, rephrases content to improve readability, and optimizes it with SEO best practices. Key SEO elements, such as updated meta descriptions, title tags, and keyword enhancements, are applied before republishing the posts. By regularly refreshing content with improved wording and relevant meta-data, this bot drives higher search engine visibility and increases organic traffic to the website, ensuring that content remains competitive and aligns with evolving SEO standards.

**Expert Engineer for Data Analysis / Ferchau Automotive GmbH**  
*April 2023 - October 2024*  
**Wolfsburg, Germany**  
Jibran will be focusing on advancing high-voltage network development for commercial and passenger vehicles, specifically aligning with Volkswagen AG's MEB (Modular Electric Drive Matrix) and MQB (Modular Transverse Matrix) architectures. His responsibilities will involve high-voltage electrical design, testing, and validation to optimize efficiency and ensure compliance with safety standards.

1. **High-Voltage Network and Commercial Vehicles Development**  
   He will lead projects in high-voltage network design, concentrating on developing next-generation systems and components that support electric vehicle architectures and enhance performance standards.
2. **Data Analysis and Model Development**  
   Leveraging MATLAB Simulink/Simscape, he will implement ZVEI model simulations to achieve accurate temperature profiles for specific current profiles. This modeling is critical for optimizing EV battery and power electronics performance under varying load conditions.
3. **Strategic Data Analysis**  
   Jibran’s role will involve designing and managing assurance concepts to validate compliance with quality and performance standards across all phases of product development, ensuring enhanced safety and operational efficiency.
4. **Simulations and Data Interpretation**  
   He will conduct simulations focused on traction power, battery systems, and power electronics, supporting data-driven decision-making for design optimizations. His analyses will provide insights into battery life, charging efficiency, and thermal management.
5. **Presentation of Results**  
   Using advanced Excel analytics and dynamic presentations, Jibran will communicate complex data findings, support design recommendations, and identify optimized solutions to stakeholders.

**Researcher / Software Developer / Fraunhofer ISE**  
*September 2017 - March 2023*  
**Freiburg, Germany**  
As a researcher and software developer, Jibran contributed to advancing photovoltaic (PV) technologies by developing scientific tools, creating simulations, and optimizing data interpretation workflows to support sustainable energy research.

1. **PV Model Development with MATLAB and Simulink**  
   Jibran developed simulation tools for photovoltaic module production processes, creating models that help predict energy yields and optimize production efficiency, aiding in Fraunhofer ISE’s mission to advance renewable energy technologies.
2. **Scientific Tool Design and Development**  
   Collaborating with interdisciplinary teams, he designed UML-based scientific tools that simulate physical processes, ensuring tool reliability and accuracy in PV model development.
3. **Agile Development**  
   Working in an agile environment, he focused on iterative model improvements, prioritizing flexibility and collaboration to enhance tool efficacy and adapt to evolving research demands.
4. **Simulation of PV Production Processes**  
   Jibran designed applications that simulate key PV production stages and predict annual kWh yields, helping researchers and developers refine production methods to increase efficiency and sustainability.
5. **Cross-Platform Programming**  
   Integrating Python libraries with MATLAB, he supported cross-functional development, enhancing data processing capabilities for more accurate simulation results.
6. **Creating Roadmaps and Specifications**  
   Jibran played a critical role in documenting and managing project roadmaps, specifications, and bug tracking, contributing to streamlined project planning and efficient problem-solving.
7. **Incident Management and Ticketing**  
   By managing incidents via Redmine, he ensured timely resolutions and maintained project continuity, contributing to a more productive research environment.

Student Assistant / Photovoltaic Production Department / Fraunhofer ISE

June 2016 - December 2016

Freiburg, Germany

In this role, Jibran contributed to the optimization of simulation tools within Fraunhofer ISE’s Photovoltaic Production Department, focusing on enhancing usability and functionality for industrial applications.

UX Improvement in Simulation Tools

Jibran was responsible for developing intuitive user interfaces (UIs) to improve the user experience (UX) for simulation tools. His task involved analyzing user workflows, identifying UX pain points, and designing UI concepts that would streamline interactions and make the tools more accessible and efficient for industrial users.

Function Testing and Verification

To support the development of reliable industrial simulation tools, Jibran developed, tested, and verified core functions within the software. He ensured each feature met quality standards, performing rigorous testing and debugging to validate functionality and confirm compatibility with the intended use cases.

Software Licensing

To protect intellectual property and control software access, Jibran implemented a security feature that restricted the software’s use to a single computer. Using an AES-based encryption model, he ensured that the simulation tools were accessible only on licensed machines, reducing the risk of unauthorized usage and enhancing overall software security.

Student Assistant / Electrical Measurement Technology Department / University of Freiburg

November 2015 - November 2016

Freiburg, Germany

In this position, Jibran worked on cutting-edge projects in wireless networking and data acquisition, applying principles of low-power design, prototyping, and PCB development to real-world applications.

Design of a Wireless Ultra-Low Power Network

Jibran used Altium Designer, LT Spice, and Circuit Maker to create an ultra-low power wireless network designed to operate with minimal energy consumption. His work involved component selection, circuit design, and simulations to ensure that the network met both power efficiency and performance requirements, making it suitable for applications needing extended battery life.

Prototyping and Testing

In the prototyping phase, he assembled the hardware components and conducted systematic testing to ensure reliability and functionality. He documented the testing process and results in detailed test reports, allowing for continuous improvement and precise verification of design objectives.

PCB Design and Testing

Jibran was involved in designing the printed circuit board (PCB) for the final prototype. He meticulously tested the PCB design, comparing its performance with the initial prototype to ensure consistent results and alignment with design specifications. This step was essential for identifying any variations or issues before moving to production.

Arduino and Xbee Project

Jibran implemented a data acquisition system for gas sensors on a custom-built drone. Using Arduino for sensor interfacing and Xbee modules for wireless data transmission, he designed a system that could monitor and transmit gas concentration data. This project involved complex integration of sensors with wireless communication systems, making it suitable for environmental monitoring applications in hard-to-reach areas.

**Freelancing Projects**

**C# Based POS System for Local German Clothing Stores**

* **Technology:** Developed a Point of Sale (POS) system on the .NET framework.
* **Database Management:** Utilized SQL database hosted on Azure to manage daily sales, inventory, and reporting.
* **Features:** Includes functionalities to manage daily sales records, inventory control, and generate comprehensive sales reports.
* **Client Benefit:** Improved efficiency and accuracy in sales and inventory management for German clothing stores, enhancing data handling and reducing errors.

**Education**

**M.Sc. Renewable Energy Engineering and Management**  
**University of Freiburg**  
*October 2014 - August 2017*  
Freiburg, Germany

* **Specialization:** Focused on energy systems technology, PV manufacturing processes, SmartGrids, and energy informatics.
* **Master’s Thesis:** Parametric approach to enhance cell-to-module (CTM) efficiency and performance, conducted in collaboration with Fraunhofer ISE (Jan 2017 - Aug 2017).
  + Developed a pseudo-summary, Gantt chart, and network diagram for structured project planning.
  + Conducted an extensive literature review on optimization algorithms such as Particle Swarm, Nelder Mead, and Interior Point Method.
  + Built a parametric optimization model for the CTM process using these algorithms.
  + Benchmarked algorithms based on accuracy and computational efficiency to optimize cell-to-module analysis outcomes.

**B.Sc. Electronics Engineering**  
**Iqra University**  
*January 2010 - January 2014*  
Karachi, Pakistan

* **Specialization:** Studied control systems, power electronics, and digital communication with FPGA.
* **Final Project:** Designed and developed an autonomous shopping cart equipped with Arduino, infrared receivers, and ultrasonic sensors to navigate and follow users, showcasing skills in embedded systems and sensor integration.
* **Where do you currently live, and what places have you lived in before?**
  + **I am currently living in Wolfsburg since 06.2024 but I have live in Freiburg from 2014 and did my masters there in Renewable Energy Engineering and management and before that I was in Karachi, Pakistan and did my bachelors in Electronics Engineering in Pakistan.**
* **What are your favorite foods or types of cuisine?**
  + **He likes all kind of food like Italian cuisine, Pakistani cuisine and Thai cuisine.**
*  **What hobbies and activities do you enjoy in your free time?**
  + **In my free time, I explore technologies and learn new skills and explore the current trend in technologies.**
  + **For physical activity I like to do Hiking and cycling in Summer and Snowboarden and boxing in winter.**
* **What type of work excites you the most?**
  + **Challenging work where you are learning and contributing to something which is shaping the world and something which will make me proud when I retire.**
* **What is your educational background, and what areas have you specialized in?**
  + I did my masters in Renewable Energy Engineering and Management (REM) from Freiburg and Bachelors in Electronic Engineering from Karachi, Pakistan.
* **Do you prefer working independently, in a team, or a mix of both?**
  + **Depending on the task, I can manage stuff independently and executes the project but if team work is required then I don’t hesitate to work in diverse team or cross-functional teams.**
* **What kind of books, movies, or shows do you enjoy?**
  + **I am a Harry potter Fan boy and also into fictional stuff. Same goes for movies. Favourite shows are Breaking Bad, Big Bang Theory and Game of Thrones**
* **What are some values or principles that guide you in your career?**
  + Driven by curiosity and practical experience, I value innovation and a hands-on approach to solving problems. My work philosophy centers on learning directly from real-world challenges, and I prioritize data-driven decision-making and strategic analysis to ensure high standards in performance and safety.
* **What is a typical day in your life like?**
  + A typical day involves working on technical projects, conducting data analysis, and managing automation and AI-driven solutions. I often use MATLAB, Simulink, and Python for modeling and simulations. My routine includes reviewing project roadmaps, engaging with cross-functional teams, and presenting analysis results, often using dynamic data visualizations in Excel.
* **Do you have any professional achievements or projects you’re particularly proud of?**
  + Yes, I am especially proud of developing AI projects such as the LiGA GPT Assistant Chatbot for expats in Germany, the automated social media video creation system using DALL-E, and an SEO-optimized blogging bot. Additionally, my contributions to high-voltage network systems for Volkswagen and photovoltaic model development at Fraunhofer ISE are significant milestones.
* **How would you describe your communication style?**
  + My communication style is clear, structured, and adaptable, allowing me to collaborate effectively within technical teams and present complex information in an accessible way for a variety of stakeholders.
* **What languages do you speak, and which ones are you fluent in?**
  + I speak English (proficient), German (fluent), Urdu (native), and conversational Hindi.
* **What are your goals for the future, both professionally and personally?**
  + Professionally, I aim to advance in the AI and data analytics industry, developing innovative automation systems and leading impactful projects in the tech and energy sectors. Personally, I hope to build meaningful connections and continue exploring diverse cultures.
* **Do you enjoy traveling? If so, where are some of your favorite destinations?**
  + Yes, I enjoy traveling. My favorite destinations include scenic spots in Germany, Switzerland, and cultural hubs across Europe.
* **What are some unique skills or experiences that set you apart?**
  + My expertise in data-driven decision-making for high-stakes projects, my innovative approach to automation using AI, and a blend of hands-on engineering and analytical skills in the automotive and renewable energy sectors set me apart. My work includes automating processes and applying AI to streamline content management and social media.

**Software Expertise**

* **MATLAB and Simulink/Simscape:** Proficient in MATLAB for high-level programming and data analysis, particularly within Simulink/Simscape for complex simulations of electrical and mechanical systems. These tools are integral to developing precise models for high-voltage networks and photovoltaic systems.
* **LAB View and Octave:** Skilled in LAB View for graphical programming, especially in testing and automation tasks, and Octave as an open-source alternative for matrix computations, useful in research and development contexts.
* **Anaconda and Visual Studio:** Comfortable with Anaconda for managing Python environments and libraries in data science projects. Visual Studio experience covers C#, C++, and VB programming, supporting a variety of development needs.
* **AutoCAD and GitLab:** Proficient in AutoCAD for designing electrical and mechanical components and experienced with GitLab for version control, facilitating smooth project collaboration and code management.
* **PVSyst:** Skilled in PVSyst software, specifically for photovoltaic system simulations, sizing, and data analysis, valuable in solar energy projects.
* **Redmine and Jira (Kanban/Scrum):** Experienced with project management software for tracking progress, incident management, and agile development, optimizing team coordination and project timelines.
* **Microsoft Office and Notes:** Proficient in creating structured reports, data presentations, and project documentation using Microsoft Office and collaborative tools like Notes for seamless information sharing.

**Programming Languages**

* **Python:** Advanced knowledge of Python for scripting, data analysis, and AI-driven solutions. Python plays a critical role in automating workflows, creating machine learning models, and developing back-end functionalities.
* **C++ and C#:** Strong in C++ for systems programming and simulations, while C# has been crucial in developing Windows-based applications like POS systems.
* **HTML and SQL:** Knowledgeable in HTML for front-end development and SQL for database management, particularly in organizing and retrieving structured data efficiently.
* **R and VB:** Experience with R for statistical analysis and data visualization, while VB (Visual Basic) has been useful in custom applications within Microsoft products.

**Certification**

* **Career Essentials in Generative AI by Microsoft and LinkedIn (May 2024):** This certification underlines my commitment to staying updated with advanced AI technology, covering core concepts and best practices in generative AI, essential for developing and deploying AI-driven applications in practical settings.

**Awards**

* **Winner of Freiburg Hackathon (June 2017):** Developed a groundbreaking device control system that measures and controls standby energy consumption, enabling users to reduce electricity costs effectively. This award reflects my skill in creating energy-efficient solutions and my innovative approach to problem-solving.

**Workshop**

* **Successful Project Management (ISE Seminar, Freiburg):** Gained valuable insights into structured project management practices, including scheduling, resource allocation, and stakeholder management, equipping me to lead and execute complex projects with efficiency.

**Electrical Software Proficiency**

* **Altium Designer, LT Spice, Circuit Maker:** Proficient in these software tools for designing, simulating, and testing electrical circuits. Altium Designer and Circuit Maker are essential for PCB design, while LT Spice provides robust circuit simulation, supporting a range of electrical engineering projects.

**Publications**

1. **"A Multidimensional Optimization Approach to Improve Module Efficiency, Power, and Costs"**
   * *Presented at EUPVSEC 2017, Brussels, Belgium*
   * This paper presents a novel optimization approach to enhance photovoltaic module efficiency and reduce costs, showcasing a multidimensional framework for solar energy systems.
2. **"Cell-To-Module (CTM) Analysis for Photovoltaic Modules with Cell Overlap"**
   * *Presented at PVSEC30 - 2020, Jeju*
   * This research investigates the CTM ratio in PV modules, focusing on cell overlap techniques to improve power output, critical for advancing PV technology.

**Hobbies**

* **Hiking and Boxing:** Engaging in outdoor and physical activities keeps me energized and enhances my focus. Hiking offers a way to connect with nature, while boxing helps maintain discipline and resilience.
* **Biking and Blogging:** Biking is both a hobby and a sustainable mode of exploration. Blogging enables me to share knowledge on topics like renewable energy and life as an expat in Germany, fostering community engagement.
* **Automation Projects using AI (e.g., ChatGPT, Claude AI):** I enjoy experimenting with AI-driven automation projects, finding ways to apply these technologies to streamline everyday tasks and enhance productivity.