

# Muhammad Bilal Hussain

Full Stack Software Engineer



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📎 https://mbilalhussain15.github.io/Portfolio/

## 🧠 SKILLS

Web Development | React | Node.js | Next.js | AI | Mobile App Development | MERN Stack | REST API | HTML | CSS | Bootstrap | Tailwind CSS | Kubernetes | CI/CD Pipeline | ASP.NET | Team-oriented

## </> PROGRAMMING LANGUAGES

C# | Python | Kotlin | JavaScript | TypeScript | Java | Swift | Shell (Bash)

## 🔧 TOOLS & PLATFORMS

Google Cloud Platform | Android Studio | Postman | Redis | MongoDB | Linux | Firebase | Atlassian JIRA | MySQL | Git | Docker | Jenkins | Terraform

## 🎓 EDUCATION

### Master

SRH Hochschule Heidelberg

04/2024 – present | Heidelberg, Germany

MSc. Applied Computer Science

### Bachelor

Karachi Institute of Economics & Technology(KIET)

09/2016 – 12/2020 | Karachi, Pakistan  
Computer Science

## 💼 PROFESSIONAL EXPERIENCE

### eDeviz GmbH

Software Development Intern

03/2025 – present | Stuttgart, Germany

- Developed and enhanced a WPF-based image annotation tool to support precise defect labeling for industrial inspection workflows.
- Implemented features such as drawing tools (pen, brush), layer management, and overlay saving/restoration using C# and OpenCV.

### CardiLink GmbH

Working Student - Android & ASP.NET Developer

03/2022 – 03/2024 | Fürth, Germany

- Developed and maintained Android applications while collaborating with cross-functional teams to design and implement innovative features.
- Extended responsibilities included developing and maintaining ASP.NET web applications, creating backend APIs for Android, and using Blazor to build cross-platform hybrid apps.

## 📁 PROJECTS

### Virtual Assistant Chatbot

Machine Learning: TensorFlow/Keras, Scikit-learn, SVM | NLP & Speech Processing: NLTK, GloVe embeddings, Speech Recognition, pyttsx3 | CustomTkinter

- Python-based virtual assistant chatbot designed to process text & voice inputs using NLP & ML.
- Dynamically switches between SVM+GloVe & LSTM based on dataset size and Implemented RNNs for improved contextual understanding.



## LEARNING & EXPLORING

Cloud-native application | SAPUI5 |  
DevOps | Cloud architecture design



## LANGUAGES

English | German | Urdu



## CERTIFICATES

- Ethical Hacking Course (Participation)
- Robomania 16 Robotics Workshop (Completion).
- Awarded Best Project for Programming Fundamentals.



## INTERESTS

- Artificial Intelligence for real-world applications (NLP, LLMs, image recognition)
- Learning new technologies and frameworks
- Cloud-native applications & architecture
- Photography and digital editing

## GKE vs GAE Cloud Deployment Comparison

Platform: Google Cloud Platform

Tech Stack: Kubernetes | Google App Engine | Artillery.io ↗ | Google Cloud Monitoring & Logging | JavaScript | Python | Deployment Tools: gcloud CLI, Kubernetes YAML, Dockerfile

- Designed and developed an interactive Tic-Tac-Toe game playable in-browser with a responsive and minimalist UI.
- Configured Horizontal Pod Autoscaler (HPA) and Cluster Autoscaler in GKE for dynamic scaling.
- Conducted detailed load testing with Artillery.io ↗ .
- Documented findings showing GAE's ease of use vs. GKE's advanced customization and cost benefits for scaled workloads.

## Human Resource Management (HRM) System

Tech Stack: Java (Spring Boot), React.js

I developed a HRM system using Java (Spring Boot) and React.js, featuring employee management, payroll, vacation, attendance tracking, and more.

## Talentra Recruitment Platform

Tech Stack: React.js, Node.js, Docker, Microservices

- Developed a full-stack recruitment platform to streamline the hiring process for companies and candidates.
- Implemented microservices architecture to ensure modularity, scalability, and ease of maintenance.
- Utilized Docker for containerized deployment, enabling consistent environments across development and production.
- Designed a responsive and intuitive frontend using React.js, with a robust backend built on Node.js and Express.