Rishabh Tiwari

📱 (+49) 17689037429 | ✉ rishtiwari98@gmail.com | ⓞ icon1cc | in icon1c | **Portfolio**

Work Experience

Porsche Engineering
Bietigheim-Bissingen, Germany

SOFTWARE DEVELOPER AI & MASTER'S THESIS
Nov 2024 - Present

- Delivered a production ML pipeline that converts **geoJSON** to **OpenDRIVE** road models, reducing tooling dependency and saving over **€200k annually** in operational costs.
- Engineered a **VR-enabled driving assistant** by bridging **Unity**, **C#**, **Python**, and **protobuf** with robotic hardware, enabling immersive real-time testing workflows.
- Initiated and led in-house experiments on **LLMs** for **geospatial data parsing**, boosting road reconstruction accuracy by **35%**.

SAP SE
Walldorf, Germany

SOFTWARE DEVELOPER – WORKING STUDENT
Jun 2025 - Present

- Resolved complex issues in legacy **SAPUI5** modules, cutting debugging effort by **50%** through efficient profiling and modular fixes.
- Modernized core table components using **JavaScript**, streamlining code maintenance and enforcing scalable software engineering practices.

University of Heidelberg
Heidelberg, Germany

GRADUATE STUDENT RESEARCH ASSISTANT
May 2024 - Apr 2025

- Optimized **LLM-based** forecasting models for time series analysis, resulting in a **75%** increase in predictive accuracy across behavioral datasets.
- Co-developed and instructed academic content on **NLP**, **Deep Learning**, and **LLMs**, enhancing curriculum delivery for graduate-level AI courses.
- Created a research-facing interface using **React**, **TypeScript**, and **Docker** to run and track ML experiment pipelines.

Datrix AI Solutions
Milan, Italy

SOFTWARE ENGINEER INTERN
Jan 2024 - Apr 2024

- Refactored UI architecture from **Vue.js** to **React** and **TypeScript**, enhancing feature modularity and cutting front-end load times by over **50%**.
- Established reusable patterns and standardized review flows, improving team-wide code quality and long-term maintainability by **25%**.
- Collaborated across teams to integrate **RESTful APIs** into scalable frontend components, increasing app stability in production environments.

University of Heidelberg
Heidelberg, Germany

SOFTWARE ENGINEER INTERN
Apr 2023 - Mar 2024

- Built a 2D **Super Mario-style** platformer in **Unity** using **C#**, implementing level mechanics and gameplay dynamics for educational use.
- Facilitated agile delivery as **Scrum Master**, coordinating sprint cycles and retrospectives to maintain consistent velocity.
- Adopted a **TDD-first** development approach, boosting overall code reliability by **80%** and easing future feature rollout.

Skills

Programming Languages	JavaScript, TypeScript, Python, HTML, CSS, C++, SQL, C, C#
Frameworks & Libraries	React, React Native, Node.js, Unity, SAPUI5
Tools & Technologies	Git, GitHub, Docker, Postgres, RESTful APIs
Cloud & DevOps	AWS (basic), Docker Compose, GitHub Actions, Linux, CI/CD
Areas of Interest	Data Structures, Algorithms, OOP, Software Engineering, Machine Learning, LLMs, RAG

Education

Ruprecht-Karls-Universität Heidelberg
Heidelberg, Germany

M.Sc. in Data and Computer Science — GPA: 1.4/5.0
Oct 2022 - Nov 2025

Politecnico di Milano
Milan, Italy

M.Sc. in Computer Sciences and Engineering — GPA: 1.3/5.0
Sep 2023 - Jul 2024

St. Xavier's College (Autonomous)
Kolkata, India

B.Sc. in Computer Science — GPA: 2.4/5.0
Jul 2016 - Apr 2021

Projects

BrainMii – A Quiz Application
Politecnico di Milano, Italy

M.SC. IOS APP DEVELOPMENT PROJECT — 🔗* BrainMii on App Store
Sep 2023 - Jul 2024

- Published a production-ready **iOS quiz app** featuring real-time **leaderboards**, **push notifications**, in-app **messaging**, and **achievement trophies**, increasing user engagement by over **5x** and making it publicly available on the **App Store**.

CorpRanks – Verified Reviews of Companies ⎘*
WEB DEVELOPMENT PROJECT MADE FOR BYTEOOLBOX SRL — ⏺ MD-Corp-Ranks

Politecnico di Milano, Italy

Feb 2024 - Jul 2024

- Architected and deployed a **full-stack review platform** using **React**, **TypeScript**, **Java**, and **Docker Compose**, leading a team of **4** engineers and reducing content moderation workload by **40%** through scalable tooling and advanced filtering features.

Kosjenka – Reading App for Children ⎘*
WEB DEVELOPMENT PROJECT MADE FOR VISAGE TECHNOLOGIES — ⏺ Kosjenka-Reading-App

Politecnico di Milano, Italy

Feb 2024 - Jul 2024

- Directed a team of **9** developers as Scrum Master to deliver a **full-stack reading app** with **gaze tracking**, improving sprint reliability by **95%** and minimizing admin workload by **70%** via automated **REST APIs** and a robust dashboard system.

Medical Question Answering System
M.SC. NATURAL LANGUAGE PROCESSING PROJECT — ⏺ NLP-Polimi-Project

Politecnico di Milano, Italy

Feb 2024 - Jul 2024

- Spearheaded the development of a clinical QA engine by training a linear classifier and benchmarking against **BERT** and **OpenAI** models, achieving **83%** accuracy and reducing latency by **40%** using real-world datasets and live trial results.

Causally Ordered Group Chat Application
M.SC. DISTRIBUTED SYSTEMS PROJECT — ⏺ Causally-Ordered-Group-Chat

Politecnico di Milano, Italy

Oct 2023 - Mar 2024

- Engineered a **peer-to-peer chat system** using **vector clocks** for causal message ordering, enabling **85%** ordering accuracy and cutting resolution overhead by **50%** through concurrency testing and fault injection experiments.

Group Monitoring for IoT
M.SC. INTERNET OF THINGS SYSTEMS PROJECT — ⏺ Group Monitoring in IoT

Politecnico di Milano, Italy

Oct 2023 - Mar 2024

- Implemented a decentralized group tracking system for mobile **IoT devices** using **Contiki-NG**, **MQTT-UDP**, and **Node-RED**, reaching **92%** detection accuracy while improving processing speed by **30%** in simulated dynamic environments.

Publication

B.Sc. Thesis Publication
GENERATION OF FACIAL DRAWINGS USING GENERATIVE ADVERSARIAL NETWORKS

Kolkata, India

Aug 2019

- Published an article: "Generation of Facial Drawings Using Generative Adversarial Networks" in the International Journal of Engineering and Advanced Technology (IJEAT), ISSN: 2249 – 8958, Volume-8 Issue-6, August 2019.

Honors and Achievements

2024	**Top-5 teams**, Google Developer Student's Club Ed- Tech Hackathon	*Milan, Italy*
2025	**Top 1% of the class**, Deutschlandstipendium 2024-25 for academic excellence	*Uni Heidelberg*

Languages

English	C2 – Fluent / Professional Proficiency
Hindi	C2 – Native or Bilingual Proficiency
German	A2–B1 – Elementary to Intermediate Proficiency