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| Arman Shirzad Cottbus, Germany shirzarm@b-tu.de +49 157 5669 3804 |  |

# Profile

Master’s student in Artificial Intelligence (BTU). Strong software engineering focus with C#, Python, robust backends, automated testing and releases, cloud, and DevOps. Translates complex technology clearly for both technical and non-technical stakeholders. **AI-focused software engineer with a strong backend and DevOps foundation.**

# Professional Experience

Software Engineer Refah Bank, Tehran 08/2022 to 03/2025

* Electronic stamp platform on ASP.NET Core (CQRS, MediatR, EF Core, SQL Server); messaging with RabbitMQ/NServiceBus; authentication with IdentityServer; API gateway.  **requests/day, > 2 M stamps, MTTR reduced by 40%**.
* Modernized legacy monolith to C# ASP.NET Core APIs (Clean Architecture, automated tests, Docker, CI/CD). **Downtime reduced by 30%**.
* Integrated neobank interfaces for users; improved resilience with retries, circuit breakers, and versioning; enabled team-scale operations.
* Architecture and performance tuning across 15+ services and external integrations.

Software Developer MAPSA Technology Center, Tehran 03/2021 to 07/2022

* Built a WPF/MVVM tool for KPI analysis in oil drilling; optimized asynchronous pipelines; **reduced reporting time by 40%**.
* Introduced Git workflows and trained teams over 3 months; supported migration from TFS to Git.

Full Stack Software Engineer Freelance, Remote 08/2020 to Present

* Delivered 12 custom APIs for SaaS/e-commerce; **p99 latency < 120 ms**.
* Built bots for Telegram, Discord, WhatsApp; significantly reduced manual posting effort.
* Implemented CI/CD with Docker and GitHub Actions; cut release times from hours to minutes; zero-downtime deployments.
* Migrated 5 SME workloads to Google Cloud with Terraform; **costs lower**; daily cost dashboards.

# Projects

**Electronic Stamp Platform** Scaling and operations under high load.  
**NASA Exoplanet Detection Platform** Led an international 5-person team; end-to-end pipeline for data preparation, modeling, and deployment as Lead Engineer.  
**GCP Cloud Resource Analytics** Serverless FastAPI dashboard with Terraform; asset and cost reports.  
**Telegram Group Audit Bot** Google App Engine, task queue, lightweight admin interface.  
**Social Media Content Automation** Orchestration of platform APIs, scheduling, content generation, and analytics pipelines (automation, monitoring, reporting).  
**qrRobust Scanner** Started as a personal project; scaled into an established open-source tool.

# Education

Master of Science in Artificial Intelligence BTU Brandenburg 03/2025 to Present  
Bachelor of Engineering in Computer Software Engineering University of Science and Culture 09/2016 to 10/2020

# Skills

* Programming & Backend: C#, Python, SQL, JavaScript/TypeScript, Bash, REST, GraphQL
* Frameworks: ASP.NET Core, EF Core, FastAPI, WPF/MVVM
* Architecture: Clean Architecture, DDD, CQRS, API Gateway
* Data & Search: SQL Server, PostgreSQL, MySQL, MongoDB, Elasticsearch
* Vector Stores: Qdrant, Milvus, Pinecone
* Messaging & Cache: RabbitMQ, Redis
* AI/LLM: RAG, LangChain, Transformers, LoRA/QLoRA, prompt design
* Data Tools: NumPy, pandas, SciPy, Matplotlib
* Cloud & DevOps: Google Cloud (App Engine, Cloud Run, Cloud Build, Secret Manager), cost dashboards
* Automation & IaC: Docker, Terraform (environments, workspaces, policies)
* Orchestration: Kubernetes, Helm
* CI/CD: GitHub Actions, Azure DevOps, trunk-based development, release management
* Version Control: Git/GitHub, TFS, rebase, squash, cherry-pick, GitFlow
* Security & APIs: IdentityServer, OAuth 2.0, OpenID Connect, JWT, rate limiting, versioning
* Testing & Quality: unit/integration (xUnit, NUnit, pytest), BDD (SpecFlow/Gherkin), Selenium/Playwright, load testing, Jest/RTL
* Frontend: HTML, CSS, Bootstrap, Tailwind, React (fundamentals), Redux/Zustand
* Build & Tools: dotnet CLI, pip, poetry, make, nox
* Product & Delivery: MVP scoping, requirements analysis, SRS/BRD, backlog grooming, Scrum/Kanban, code review, documentation
* Collaboration: Azure Boards, Jira, Figma, Visio, UML
* Research & Writing: LaTeX/Overleaf, literature review, bibliometric studies

# Publications

* A Bibliometric Analysis of Quantum Machine Learning Research. *Journal of Science and Technology Libraries*, 2024. [DOI](https://doi.org/10.1080/0194262X.2023.2292049)
* Text Independent Speaker Recognition — A Novel Deep Learning Approach. *CoDIT*, 2024. [DOI](https://doi.org/10.1109/CoDIT62066.2024.10708578)
* Cost Efficiency in Cloud Data Centers via Model Free Q Learning. *ICEEE*, 2024. [DOI](https://doi.org/10.1007/978-981-97-9112-5_27)

# Certifications

* Docker Foundations Professional Certificate — Docker Inc — 2024
* ASP.NET for Experienced Developers Specialization — Coursera and Brood Infinity — 2024
* Career Essentials in Generative AI — Microsoft
* Microservice and Deployment — Coursera
* Programming in C# Certification — Technical Institute of Tehran — first in cohort
* AI Ethics — LinkedIn Learning

# Languages

Persian (native) English (C1) German (A2)

# Availability

Based in Cottbus; flexible part-time during the semester; increased hours during semester breaks; remote and on-site by arrangement.

# Links

GitHub Portfolio [github.com/ArmanShirzad](https://github.com/ArmanShirzad)  
LinkedIn [linkedin.com/in/arman-shirzad](https://linkedin.com/in/arman-shirzad)  
Personal Website [armanshirzad.guru](https://armanshirzad.guru)