

| Full Stack Software Engineer |



Full Stack Software Engineer with expertise in **.NET backend** and **Angular frontend** development, building **scalable, high-performance applications** for both enterprise and factory production environments. Experienced in **microservices architecture, CI/CD pipelines,** and **containerized deployments** using **Azure, Docker, and Kubernetes**. Hands-on with **Python (FastAPI, LangGraph)** for backend or AI workflows, including **LLM-based automation**. Focused on **clean architecture, maintainable code, and automated testing** to ensure long-term reliability. Motivated by solving **complex technical problems** and delivering software that has **real-world impact**.

AREAS OF EXPERTISE
Programming: C#, TypeScript, JavaScript, HTML, CSS, SCSS, Python
Backend: .NET 8, FastAPI
Frontend: Angular (20, Signals, NgRx, RxJS, Material)
Database/ORM: MSSQL, Oracle DB, Entity Framework Core
Cache/NoSQL: Redis
Cloud & DevOps: Azure, Azure DevOps CI/CD, Docker, Kubernetes, Helm
Testing: Unit & Integration (xUnit, NUnit), E2E (Cypress, Postman), Load (Locust)
Message/Event Streaming: RabbitMQ
AI/Automation: GitHub Copilot, LLM integrations, LangGraph, AI-powered orchestration

WORKING EXPERIENCE AND ACCOMPLISHMENTS
Full Stack Software Engineer Robert Bosch Kft. Jan 2021 – Present

- Developed and maintained **.NET 8** backend and **Angular 20** frontend applications for **factory production systems**, supporting automation, monitoring, and operational efficiency.
- Designed and implemented **microservices-based, scalable architectures** with **Oracle**, and **RabbitMQ** for high-availability production environments.
- Implemented **unit, integration, and E2E testing** (xUnit, NUnit, Cypress, Postman, Locust) to ensure **reliable, maintainable, and high-quality software**.
- Participated in **design and architecture discussions** to define application structure, feature implementation, and technical strategy.
- Mentored developers and introduced **modern Angular features** (Signals, NgRx) to improve team productivity and code maintainability.

Key Accomplishments:

- Refactored legacy code with **Domain-Driven Design** and **Entity Framework**, improving maintainability, scalability, and performance.
- Developed a **foundational engineering framework** with configurable steps, enabling flexible, scalable application workflows.
- Optimized **CI/CD pipelines** using **Azure DevOps, Docker, and Kubernetes**, achieving a 40% faster deployment runtime.
- Improved **project and system documentation** using **GitHub Copilot** to streamline writing, maintain consistency, and reduce manual effort.

PLC Programmer | Robert Bosch Kft. | Feb 2018 – Jan 2021

- Developed and maintained **control software for industrial machines** in factory production environments.
- Commissioned machines and supported trial production, ensuring operational efficiency and minimal downtime.
- Collaborated with customers to gather requirements and ensure satisfaction.
- Managed small-scale projects, overseeing timelines, deliverables, and smooth integration with production systems.

Key Accomplishments:

- Contributed to the **implementation and commissioning of a new manufacturing line**, enabling smooth integration with existing systems and operational efficiency.

PLC Programmer | Agrometal-Food-Tech Kft. | Jun 2015 – Feb 2018

- Implemented machine control software from scratch and created **circuit diagrams** for machine systems.
- Participated in commissioning to ensure proper functionality and performance optimization.
- Provided after-sales support and troubleshooting for production systems.

Design Engineer | Baldwin UV Ltd. | May 2014 - May 2015

- Learned core concepts in **control systems, automation, and programming**.
- Applied **signal processing, electrical machinery, and digital system** knowledge to practical projects.
- **Developed problem-solving and system design skills through hands-on applications.**

EDUCATION AND CERTIFICATES

BSc Electrical Engineering | University of Pecs | 2014

LANGUAGES:

Hungarian | native **English** | fully proficient

PORTFOLIO

Full Stack Finance App (.NET, Angular, Azure, Python, FastAPI, LangGraph)

Built a **full-stack web application** with secure **user management**, **transaction CRUD**, **CSV import**, and **AI-powered transaction categorization**. Implemented **background jobs** for exchange rate updates and deployed via **Azure Container Apps with GitHub Actions CI/CD**, focusing on **scalable architecture, performance, and automated testing**. The project demonstrates **microservices design, DevOps workflows**, and **LLM/AI integration** in a practical application.

Try it online: www.szilardferencz.dev/#portfolio