

| 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**.

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

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
<ul style="list-style-type: none">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