

| Full Stack Software Engineer |



Full Stack Software Engineer specializing in **.NET** and **Angular**, building **scalable, high-performance applications**. Experienced in **microservices**, **CI/CD pipelines**, and **containerized deployments** on **Azure**, **Docker**, and **Kubernetes**. Skilled in **Python (FastAPI, LangGraph)** for **backend** and **AI workflows**, including **LLM-based automation**. Committed to **clean architecture**, **maintainable code**, and **automated testing** for reliable software delivery.

AREAS OF EXPERTISE

Programming: C#, TypeScript, JavaScript, HTML, CSS, SCSS, Python

Backend: .NET 8, ASP.NET, FastAPI

Frontend: Angular (15+, 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

PORTFOLIO

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

Built a **full-stack web application** featuring **secure user management**, **transaction CRUD**, **CSV import**, and **AI-powered transaction categorization**. Designed and implemented the **Angular frontend UI from scratch**, creating custom layouts and components for a **clean, intuitive user experience**. 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. **Explore my projects:** www.szilardferencz.dev/#portfolio

WORKING EXPERIENCE AND ACCOMPLISHMENTS

Full Stack Software Engineer | Robert Bosch Kft. | Jan 2021 – Present

- **Developed and maintained** scalable **.NET 8** backend and **Angular 20** frontend applications for **factory production systems**, supporting **automation**, **monitoring**, and **operational efficiency** through seamless **REST API integrations** with external services.
- **Designed and implemented** **microservices-based architectures** with **Oracle** and **RabbitMQ**, ensuring **high availability** and **fault-tolerant** production environments.
- **Implemented comprehensive testing** (unit, integration, and E2E with **xUnit**, **NUnit**, **Cypress**, **Postman**, **Locust**) to guarantee **software reliability**, **maintainability**, and **quality**.
- **Contributed to system design and architecture discussions**, shaping **application structure**, **feature development**, and **technical strategy** in collaboration with cross-functional teams.
- **Delivered pixel-perfect UI/UX** in **Angular**, translating **Figma designs** into **responsive**, **maintainable**, and **user-friendly** interfaces.

- **Mentored developers** and introduced modern **Angular features (Signals, NgRx)**, enhancing **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