# ALEKSANDAR TRAJKOV

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## PROGRAMMING EXPERIENCE AND TECHNICAL KNOWLEDGE

**Programming languages**: SQL, C#, Javascript, HTML, CSS

**Tools and frameworks**: ASP.Net Core, EF Core, Azure Functions, Azure ServiceBus, Azure CosmosDb, Datadog, MS SQL, ReactJs, jQuery, Bootstrap, BEM CSS

**CI/CD**:  Github Actions, Azure DevOps, Octopus

**Cloud services**: Microsoft Azure

## PROFESSIONAL EXPERIENCE

**Senior software engineer**, Personal Programmer, *10/2024 – 09/2025*

Developed and implemented a seamless integration between an older, admin-focused license reselling eShop and a modern, customer-facing eShop platform. This solution streamlined the purchasing process for licenses, eliminating the need for internal staff to manually enter orders. The integration supported tailored product catalogs for individual customers, including customized pricing and product availability, ensuring a personalized and efficient shopping experience for each client.

- Senior software developer in team of 6
- Responsible for planning, development, testing and deployment of features
- Contributed to multiple repos implementing various frameworks (.Net 4.7.2 and .Net Core 8), with various technologies for communication (REST, GRPC, RabbitMQ)
- Contributed to implementing PCI-DSS compliance to external facing portal

- Contributed to implementation of Subsidiary logic, separating out customers based on geographical regions, with restrictions for currency, countries and payment methods.
- Contributed to implementation of forward-facing API for e-commerce purposes (the actual customer facing app was developed by an external team)

**Senior software engineer**, Metergram, *10/2023 – 09/2024*

Implementing the backend for an OCPP (Open Charge Point Protocol) server involves integrating WebSocket and REST APIs to facilitate robust communication between electric vehicle (EV) charge points and the central management system. The WebSocket protocol serves as the primary communication channel for real-time, bidirectional messaging, ensuring low-latency interactions necessary for operations like session initialization, status updates, and remote diagnostics. REST APIs complement this setup by providing endpoints for non-real-time functionalities such as charge point registration, firmware updates, and reporting.

- Senior software developer in team of 3
- Implemented backend for communication between EV chargers and API with WebSocket technology
- Implemented communication between WebSocket API and message processing API via Azure ServiceBus
- Implemented OCPP 1.6 and OCPP 2.0.1 protocol of EV charging messages
- Integrated processing API with previous data services to ensure continuation of data integrity

**Senior developer**, Avenga (formerly Seavus), *10/2022 – 09/2023*

Developed and deployed a PCI DSS-compliant microservice for card payment processing, integrating with third-party gateways, implementing secure APIs, and ensuring scalability, reliability, and robust error handling, integrating the new P27 payment processor into the bank's infrastructure.

- Senior software developer in team of 5
- Implemented integration between external payment provider system (P27) and external data ledger system

- Implemented service for calculating loan risk assessment for determining loan elegibility

**Senior software developer**, Endava, *01/2021 – 05/2022*

Implemented a comprehensive energy trading platform, enabling real-time transactions and efficient management of energy assets. Integrated external data sources for price forecasts and grid status to optimize trading decisions. Ensured the platform's scalability and resilience through a microservices architecture, leveraging cloud infrastructure for high availability and performance. Focused on secure data handling and compliance with energy market regulations, while delivering a user-friendly interface for traders to monitor and execute trades seamlessly.

Senior software developer in team of 15

- Implemented an always-on background service that integrated with external energy exchange to send and receive data
- Implemented trigger-based workflow, using Azure functions and Azure CosmosDb as storage for processing and calculation of various data needed for energy trading
- Streamed data in real-time with SignalR to frontend and back for instantaneous two-way communication

**Senior software engineer**, RLDatix (formerly Allocate software), *03/2016 – 12/2020*

Implemented a robust shift scheduling software for hospital personnel and elderly care in Sweden, covering more than 50% of all customers in the country. It utilized comprehensive scheduling rules to ensure every employee was only scheduled according to their contracts and preferences automatically. With various integrations towards external systems for HR management, payroll and temp employment agencies, we ensured that the entire management cycle was as seamless as possible.

- Senior software developer in team of 8
- Implemented various modules, migrating functionality from older desktop (Delphi) application towards a more modern web-based multi-tenant application
- Led team discussions and decisions based on seniority and experience
- Implemented frontend architecture for new service that migrated another desktop app

- Participated writing automation tests with Robot framework, on top of standard unit and integration tests

**Senior .Net engineer**, InScale (formerly Vedel IT), *04/2015 – 03/2016*

Participated in implementation of safety hazard sheet management for factories, waste management facilities and other kinds of production facilities where safety gear was mandatory and hazardous materials were in use. Implemented creation of print-ready PDF documents for the safety gear location and hazardous materials in use for each department separately.

- Senior software developer in team of 4
- Implemented PDF file generation and download for further printing
- Implemented CRUD operations for generation of safety data sheets
- Worked in a looser, canban-based style of management of tasks, where we had sprints lasting several months

**Web Developer**, Matrix Global, *05/2014 – 04/2015*

Contributed to the development of software designed for testing network equipment, supporting both simulated and real devices to streamline configuration and troubleshooting. Focused primarily on the frontend implementation, creating intuitive interfaces for visualizing and managing device topologies. Also helped present detailed simulation data, enhancing the overall usability and efficiency of the testing process.

- Software developer in team of 9
- Participated in implementation of network topology visualization in custom view
- Implemented sending out commands to custom interfaces (developed by other teams) for integrating with physical devices

**Web Developer**, Artistika Design, *10/2010 – 05/2014*

A small boutique agency specializing in crafting modern, frontend-focused websites for businesses and government organizations. The team delivered visually engaging, user-friendly digital experiences tailored to each client's needs. In addition to web projects, the agency also designed and developed a complete web-based e-shop from the ground up, showcasing its ability to handle complex, full-stack solutions.

- Junior software developer in team of 3
- Gradually moved to sole developer as team members left the company
- Participated in implementation of websites based on a custom CMS platform, working mostly on the frontend part
- Participated in development of e-shop platform for well known local business
- Did manual testing and deployment of software solutions
- Fielded customer support as needed

## EDUCATION

Bachelor of Science, Ss. Cyril and Methodius University, Institute of Informatics, Faculty of Natural Science and Mathematics, Skopje, Macedonia, *2006-2010*

**Major**: Internet and mobile technologies

**Relevant courses**: Object Oriented and Visual Programming, Internet Technologies, Data Structures and algorithms, Software Engineering, Database Design, Statistics and probability, Computer Networks, Computer Architecture, Wireless and Mobile Technologies, Web Design, E-Business, Software Projects Management, Professional Ethics

**Bachelor's thesis**: "Browser-based strategy game"

## CERTIFICATIONS

**MCSD: Web Applications**: *02.2017 – 02.2019*

## LANGUAGES

**Macedonian**: Native language

**English, Serbian, Croatian**: Advanced proficiency, oral and written

**Spanish**: Basic proficiency, oral and written

## INTERESTS

Traveling, Fitness, Self improvement, Skiing, Dancing, Gaming