

Personal details

Name and surname: Tomasz Strzałka

Place of residence: Czernica

Contact:

- **E-mail:** strzalkatomasz@windowslive.com
- **Cellphone:** +48 724 097 031
- **StackOverflow:** user:12739261
- **GitHub:** PWrGitHub194238



Education

2015.02 -2016.07

Wrocław University of Science and Technology

Full-time, master's degree studies in computer science at Faculty of Fundamental Problems of Technology with the specialization of algorithmics.

Diploma thesis: Selected robust discrete optimization problems with recourse.

The final grade of studies: 5,0 (A)

2011.10 -2015.01

Wrocław University of Science and Technology

Full-time, engineer's degree studies in computer science at Faculty of Fundamental Problems of Technology.

Diploma thesis: The shortest path-searching algorithms in real road networks.

The final grade of studies: 5,5 (A), laureate of the best graduate title at Faculty of Fundamental Problems of Technology in academic year 2014/2015.

Foreign languages (native language – Polish)

English:

speaking and writing: upper-intermediate (B2+) .

German:

speaking and writing: beginner (A1).

Exams and certificates

- Exam 98-361: Software Development Fundamentals 895 pt (19.01.2019),
- MTA: Software Development Fundamentals,
- Exam 483: Programming in C# 914 pt (17.08.2019),
- Exam 486: Developing ASP.NET MVC Web Applications 855 pt (23.08.2020),
- MCSA: Web Applications,
- Sitecore® Experience Solution 9 Developer Certification Exam 90 % (14.06.2021),
- Exam AZ-900: Microsoft Azure Fundamentals 850 pt (26.08.2021),
- Microsoft Certified: Azure Fundamentals.

Commercial experience

2019.11–

Capgemini Polska Sp. z o.o. (Wrocław – NSC FS Banking)

- Maintaining and development of two internal client's applications:
 - to manage passwords and process authorization (Angular 8-12, Angular Material, Node.js, Express, Oracle),
 - for the vulnerability management of the software infrastructure (ASP.NET Core MVC 3, EF Core, Angular 8, Angular Material , MS-SQL),

- responsibility for the entire development lifecycle (gathering requirements, designing solutions, development, deployment, maintenance of the app),
- writing and maintaining unit tests for the applications.

2018.08 – 2019.10 Capgemini Polska Sp. z.o.o. (Wrocław – NSC FS Banking)

- Development and maintenance of Software for financial sector maintenance and development (C#, .NET, Sitecore),
- responsibility for the entire development lifecycle (gathering requirements, designing solutions, development, deployment, maintenance of the app), contact with client's software architects,
- writing and maintaining unit tests for the applications.

2018.02 – 2018.05 Sente Systemy Informatyczne Sp. z.o.o. (Wrocław – R&D section)

- Maintaining and development the internal framework, creating new functionalities for main ERP desktop and web application (C#, Firebird/PSQL, CSS),
- developing satellite, Neos-based products/plugin's (C#),
- providing technical support to other teams in the field of company's internal technology,
- conducting internal training (Git, ERP application know-how, Neos platform).

2016.04 – 2018.01 Sente Systemy Informatyczne Sp. z.o.o. (Wrocław – Service Team)

- Creating functionalities in the ERP class system in the areas of Finances and Accountancy, Personnel, handling key clients (phone contact),
- ensuring ERP application maintenance and error correction (C ++, C #),
- optimization of database structures (Firebird/PSQL),
- conducting internal training (Git, ERP application know-how).

2014.07 – 2015.01 Comarch SA (Wrocław – interrupted for the Master's degree studies)

- Implementation and testing of computer software,
- creating functionalities in a CRM class system for a client in Java J2EE technology with the Spring and Hibernate components, based on the Oracle relational database,
- conducting regression tests.

2013.07 – 2013.09 Comarch SA (paid internship - Wrocław - interrupted to complete Engineer's studies)

- Implementation and testing of computer software,
- modification of the tariff-change functionality in the CRM class, Java J2EE-based system using Spring and Hibernate components with the Oracle relational database.

Non-commercial projects

- **Chemistry Home Office** - a web application for managing student files/documents uploads. It supports account creation, files and photos uploads either from the file explorer or directly from the phone cameras, extended configuration: defining types of tasks, classes, items, icons, user management. Application allows to view student's uploads directly in the app and grading them. The documents sent are delivered also to defined e-mail accounts (Angular, Angular Material, RxJs, Firebase).

Commercial projects (Capgemini Polska Sp. z.o.o.)

- **Azure Shorts: Azure Functions** - a short speech within the .NET Community to showcase the capabilities of Azure. The first presentation introduced the stateless Azure functions with the use of other platform services, such as: HTTP triggers, Azure Cosmos DB, Azure Queue Storage, Azure Blob Storage, and Azure SendGrid along with connecting to an external Trello service. The project repository includes description of examples created for the presentation of those functionalities (C #, Azure Functions, PowerShell).

- **Introduction to Blazor** - a web application presenting the full range of Blazor engine capabilities. The application contains interactive documentation with step-by-step instructions through the process of building a Razor component in 12 separate modules. Each module covers various aspects of the engine, including parameters, data bindings, rendering fragments, lifecycle, built-in components, cascading values, forms, navigation, Blazor services, JS Interop, API communication (C #, Blazor, ASP.NET Core, EF Core, SCSS, TS).

Commercial projects (Sente Systemy Informatyczne Sp. z o.o.)

- Creation of an interactive, automated training environment in the field of version control systems (Git). System assumptions: self-developing work with real repositories, provided automatically by the system, defining scenarios to be performed, the possibility of automated verification, system allows automatic interference in the state of any repository, modify it to suit the needs of the next scenarios (artificial repository user), ease of adding scenarios (HTML5, CSS3, JS: jQuery, jQuery UI, AJAX, DataTables, Notify, TipTop, Node.js: Express, Scribe-js, JSON, Gitolite, Perl, Bash, Firebird/PSQL).
- Implementation of Standard Audit File for Tax (pl. JPK) service interfaces - a library supporting the generation of JPK documents based on downloaded information from customer databases, ensuring communication with the Ministry of Finance's electronic document exchange system for JPK (REST, Azure Storage) along with proper data encryption (C#: RestSharp, BouncyCastle, NLog, Firebird/PSQL).
- Implementation of the interface for ERP application for running external libraries. Application assumptions: a graphical interface that downloads and processes information from an ERP application depending on the loaded library (plug-in), displaying the status of data processing progress by a plug-in through a shared interface (C#: WPF, LINQ, Firebird/PSQL).
- Implementation of a plug-in library to support cryptographic processes for the needs of the Ministry of Finance's electronic file exchange system. System assumptions: offering the possibility of submitting an electronic signature (XAdES-BES) on any XML document (C #: WPF, MVVM, LINQ, BouncyCastle, Nlog).

Technical skills

Preferred programming languages: C#, Java SE, C++.

- C# (currently leading – Capgemini Polska Sp. z o.o., Sente Systemy Informatyczne Sp. z o.o.),
- C/C++ (both diploma projects, C ++ necessary for the development of the source code of ERP application in Sente Systemy Informatyczne Sp. z o.o. - technological debt, rarely used),
- Java SE (a significant part of academic projects, starting cooperation with Comarch S.A – Java EE).

Web technologies: :

- Angular, Angular Material, TS (Capgemini Polska Sp. z o.o.),
- ASP.NET Core MVC (Capgemini Polska Sp. z o.o.),
- JS (Node.js, jQuery oraz jQuery UI, AJAX, laureate of SynergyCodes Code Challenge 2015),
- HTML5/CSS3 (selectors, CSS-Grid, basic styling and transformations).

Knowledge of databases, project management environments, programming environments:

- knowledge of relational databases: Firebird (Sente Systemy Informatyczne Sp. z o.o.), Oracle (Comarch SA), MS Server (Capgemini Polska Sp. z o.o.),
- work with project management environment JIRA (Comarch SA, Sente Systemy Informatyczne Sp. z o.o., Capgemini Polska Sp. z o.o.),
- work with version control systems: SVN (Comarch SA), Git (Sente Systemy Informatyczne, Capgemini Polska Sp. z o.o.),
- work in given programming environments: Visual Studio, Visual Studio Code Eclipse, IBEExpert.

Knowledge of advanced data structures:

- implementation and graphical simulation of structures: RBT, enhanced RBT, BST, SkipList, implementation of positional statistics based search algorithms - Median of medians, RandomSelect (Java, C ++).

Knowledge of Java EE elements:

- work with EJB, JPA, JSP, Hibernate, Spring, Apache POI-HSSF (Comarch SA).

Other qualifications:

- knowledge of SCRUM methodology (Comarch SA, Sente, Capgemini), GNU Bash environment, basic knowledge of Jenkins processes, Selenium, Docker, Nightwatch.js, practical knowledge of LP / MIP / IP programming and optimization packages (GNU Octave, IBM ILOG).

Academic projects:

- **Master's degree project** - implementation of robust optimization algorithms with simultaneous solution of problems: minimax, adversary, resistant minimum spanning tree with the possibility of improvement (C++11, log4cxx, Graphviz, IBM ILOG CPLEX, RapidJson, Boost).
- **Engineering project** - implementation of shortest-path search algorithms used in road traffic: variants of the generic Dijkstra algorithm (with range modification (**DKA**), using a multi-level structure (**DKD**), with overflow support (**DKM**)), based on known structures (K-trees (**DKH**), R-heaps (**DKR**), Fibonacci's mound (**DKF**)), algorithms: Dial (**DKL**), RadixHeap (**DKX**), Pape (**PAP**), Pallottino (**TQQ**), topological algorithms (**GR1**, **GR2**) and a threshold algorithm (**THR**) (C ISO 9899: 1999).
- Implementation of an imperative language compiler for a given virtual machine specification (C, Flex, Bison).
- **Android MultiPlay** – an application for mobile devices with Android, simulating most of well-known physical Plug & Play controllers (PC/PS). Team project using wireless WiFi / BT communication, SQLite database (Java SE).
- **ScholaPPTCreator** – project generating presentations in .ppt format based on given .txt files (Java, Apache POI-HSSF, CLI, EJB, Google MJL).

Additional information

According to StandOut and 16Personalities, I am a type of Defender / Advocate / Guardian, which quite closely defines my way of being and character that I have; I do not like minimal approach, lack of attention to details, I like to have everything under control. In my free time, I often reach for books - technical and not - mainly fantasy-themed, I'm interested in board games, strategies, and I also have my participation in singing in a small choir.