Dejan Antanasković

Senior Software Engineer

dejan@antanaskovic.com

www.antanaskovic.com

Hamburg, Germany

I'm a Diplom-Ingenieur (MSc) in Electrical Engineering with a focus on Computer Science, and a seasoned software engineer with over two decades of experience in designing, developing, and maintaining robust backend and frontend systems. I've participated in and led the development of a wide range of software systems-spanning from scientific and geospatial applications to complex web and mobile platforms.

Throughout my career, I've contributed to more than 30 projects, including complex EU-funded research initiatives and commercial software solutions. My work has supported interdisciplinary research in environmental modeling, urban planning, medical logistics as well as parcel shipping logistics. I bring deep technical expertise in Java, Spring Boot, PostgreSQL/PostGIS, and geospatial standards (OGC/GML, metadata, routing), combined with a strong foundation in frontend technologies and mobile app development. In addition to software development, I have a solid background in Linux systems administration, networking, and DevOps practices.

I have worked both as an independent consultant and within academic institutions, primarily serving clients and collaborators across the DACH region and wider Europe.

Work Experience

Freelance Software Developer

Self-employed | Remote

2022-Present

As an independent software developer, I have been working on a range of projects for clients across various industries, delivering tailored software solutions from concept to deployment.

Key activities and accomplishments include:

- Designing and building parcel shipping systems, including shipment routing and delivery optimization.
- Developing custom logistics modules for tracking and address-based route calculation.
- Creating a complete online bookstore platform with reservation features and secure online payment integration.
- Building cross-platform mobile apps using Flutter and Dart, tailored to specific client needs.
- End-to-end delivery of full-stack applications, including backend (Java, Spring Boot), frontend (HTML/CSS/JavaScript), and server configuration (Linux, Docker, Apache).

I maintain long-term cooperation with clients, ensuring system stability, updates, and ongoing support.

Full-Stack GIS Developer

Robots Expert Oy, Finland | EU Research Project | Remote

2019-2022

Led the design and full-stack development of a GIS-enabled platform for drone-based medical logistics within the EU-funded AiRMOUR project.

- Developed backend services in Java and Spring Boot to ingest, process, and expose spatial data via REST APIs.
- Engineered an interactive web-based map interface using Leaflet, JavaScript, and HTML for route visualization and user interaction.
- Integrated heterogeneous geospatial datasets (e.g., road networks, medical infrastructure, airspace constraints) to support automated air route planning.
- Ensured performance and reliability in processing real-time and static geographic data to enable mission-critical drone operations.
- Contributed to the overall goal of enhancing urban healthcare logistics through safe and efficient drone delivery systems.

Java Software Developer with focus on Geospatial Systems (Academic Projects)

Hamburg University of Technology (TUHH), Germany

2006-2019

Worked within a university research environment, primarily developing Java-based software solutions involving spatial databases and GML (Geography Markup Language) for scientific and environmental data modeling. My responsibilities included the design and implementation of components for processing and storing geospatial data, with emphasis on standards-compliant data exchange and interoperability.

In addition to software development, I was responsible for administering and maintaining core network-related services required by various interdisciplinary research projects. This included configuring and managing web hosting environments, MySQL and PostgreSQL databases, Subversion repositories for version control, mailing list systems, and CMS installations used for project communication and dissemination.

The role required close collaboration with researchers from multiple scientific domains, ensuring technical infrastructure and software tools aligned with the data management and analysis needs of each project.

Head of IT Infrastructure and Services

Faculty of Civil Engineering, Belgrade University, Serbia

2004-2006

Led network and systems operations as the chief engineer and administrator, overseeing the planning, configuration, and maintenance of the Faculty's IT infrastructure.

Coordinated a technical support team and managed core services including Windows Server 2003 Active Directory, enterprise LAN/WAN systems (Cisco routers, managed switches, VLANs), and server-side components. Responsibilities included advanced network troubleshooting, firewall and security management, and the administration of critical services such as DNS, DHCP, Qmail, and Apache on both Windows and Linux platforms.

Network & Systems Administrator

Governmental Geodetic Authority of Serbia

2002-2004

Network and systems administration, including the configuration, maintenance, and monitoring of LAN infrastructure and Windows 2000 Active Directory services. Responsible for ensuring network reliability, user access control, and overall system stability.

IT Support Technician

microNet, Belgrade, Serbia

1999-2002

Customer support and deployment of enterprise network services and hardware, including installation and configuration tasks.

Projects

I have participated in over 30 software development projects across various domains, but only a selection of representative projects is listed here. These examples highlight the range and depth of my experience.

Expedit

Freelance | AntSoft

Expedit is a logistics software suite designed to streamline shipment handling for courier partners. The core component, Expedit Client, provides users with a user-friendly interface to create, edit, and track shipments and addresses. It automatically communicates with a central server to sync data, eliminating manual transfers.

Key functionalities include:

- Automated data import and validation (e.g., city name autofix, batch data correction)
- End-of-Business-Day processing with automated label printing and report generation—even offline
- Customizable printing workflows, including barcode labels and internal reports
- Comprehensive shipment and address history, with powerful filtering, sorting, and duplication tools
- Routing module that calculates optimal delivery routes based on destination addresses.

I was solely responsible for the design, development, and ongoing maintenance of the entire software system.

cityexpress.expedit.support

AiRMOUR - Opening up the skies for medical emergency drones

Robots Expert Oy

AiRMOUR is an innovative project focused on designing and implementing a GIS-supported platform for medical drone operation. The system integrates spatial data from various sources—such as road networks, health facility locations, and environmental constraints—to enable the planning and definition of optimal air routes for drones delivering medical supplies. By combining real-time geographic insights and advanced algorithms, AirMour aims to enhance the efficiency and reliability of drone-based healthcare logistics.

In my role, I took responsibility for the full-stack implementation of the GIS platform. On the backend, I developed RESTful services using Java and Spring Boot to process and integrate spatial datasets. On the frontend, I built an interactive mapping interface with Leaflet, JavaScript, and HTML that allows users to visualize routes, explore map layers, and design drone paths.

airmour.eu

UrbMod - multi-sector urban development impact model

TUHH

Interdisciplinary research initiative aimed at identifying optimal strategies for promoting urban health. Funded by the State of Hamburg, the project brings together experts from diverse fields—including meteorology, geography,

urban planning, medicine, engineering, and mathematics—to collaboratively address the complex challenges of sustainable urban development.

Within this project I was responsible for metadata integration. My role involved harmonizing and structuring geospatial and environmental metadata from various sources to enable efficient data discovery and interoperability across research platforms. This work supported collaborative modeling and analysis in the context of urban climate and sustainability.

www.cen.uni-hamburg.de|UrbMod

Kalypso

TUHH

Kalypso is an open source application for geospatial modelling and simulation in water management. Along with providing standard functions for hydrological and hydraulic simulation, Kalypso is distinguished by its modular design and modern, operator-friendly user interfaces.

Main features:

- Hydrological model
- Water surface profile model
- Unsteady coupled 1D/2D finite element model
- Module for flood depth determination
- Module for flood risk determination

I contributed to the Kalypso project as a software developer, with primary responsibility for the Flood Risk module. My work involved implementing core features for assessing and visualizing flood risks based on geospatial and hydrological data. In addition to my main focus, I was actively involved in the development and integration of other Kalypso modules.

sourceforge.net/projects/kalypso

Publications

Self-maintaining online geo-data documentation platform based on standardized metadata and reusable learning objects
Schrage N., Antanasković D., Nehlsen E., Fröhle P. (2019)
21st European Geosciences Union General Assembly 2019, Vienna, Austria

A conceptual modeling approach to health-related urban well-being
von Szombathely M., Albrecht M., Antanasković D., Augustin J., Augustin M., Bechtel B., Bürk T., Fischereit J., Grawe D., Hoffmann P., Kaveckis G., Krefis A., Oßenbrügge J., Scheffran J., Schlünzen K. (2017)
Urban Science Jurnal, Vol. 1, 2, 17

Flood Resilient Systems and their Application for Flood Resilient Planning
Manojlović N., Gabalda V., Antanasković D., Gershovich, I., Pasche E. (2012)
European Geosciences Union General Assembly 2012, Vienna, Austria

A Contribution to the Multi-scale Flood Resilient Planning
Manojlović N., Antanasković D., Gershovic, I., Gabalda, V., Pasche, E. (2012)
Extended Abstract for the SMARTeST International conference, Athens, Greece

Multiscale flood risk assessment with physically based damage modelling tools
Manojlović N., Antanasković D., Pasche E. (2010)

9th International Conference on Hydroinformatics, Tianjin, China

Theory and Technology to Improve Stakeholder Participation in the Development of Flood Resilient Cities
Manojlović N., Pasche E., Antanasković D., Gershovich I. (2009)
Proceed Int. Conference - "Road Map Towards a Flood Resilient Urban Environment", Paris, France

A Road to Flood Resilient Cities by Decision Making for Resilient Built Environment and Capacity Building of Stakeholders
Manojlović N., Pasche E., Antanasković D., Kemloh U. (2009)
33rd IAHR Conference, Vancouver BC, Canada

KALYPSO - An open source software tool for flood studies in rivers
Schrage N., Antanasković D., Jung T., Pasche E. (2009)
8th International Conference on Hydroinformatics, Concepción, Chile

Capacity Building in Flood Risk Management through a Decision Support System for Local Scale Mitigation Utilising Data Mining Approach
Manojlović N., Kemloh U., Owotoki P., Antanasković D., Pasche E. (2009)
8th International Conference on Hydroinformatics, Concepción, Chile

Adaptive web based testing
Antanasković D., Kovačević M. (2004)
10th International Simposium on Computer Science and Information Technologies YU INFO, Kopaonik, Serbia

Scholarships

German Academic Exchange Service

DAAD | 2006

DAAD scholarship for a stay at the Hamburg University of Technology (TUHH), Germany, and participate in the Project "Improvement of Research and Education in the Field of Water Resources in Serbia and Montenegro", with the main objective to establish an E-Learning common platform among the University of Belgrade, University of Montenegro, and TUHH.

Education

Dipl.-Ing. in Electrical Engineering, specialization in Computer Science and Informatics
Faculty of Electrical Engineering, University of Belgrade, Serbia, 2004
My academic background combines the rigor of electrical engineering with a strong emphasis on computer science. During my studies, I focused extensively on software development, algorithms, and system design.

Cisco Certified Network Associate (CCNA)
Cisco Regional Academy, Belgrade, Serbia, 2005
Demonstrating foundational knowledge and practical skills in networking, including routing, switching, and network troubleshooting.

Skills

Technical

Java/Spring Boot/Microservices

Spatial Data/GIS/Metadata

HTML/CSS/JavaScript

Python/PHP

Flutter/Dart

PostgreSQL/MySQL

Design and implement database structures

Lead and deliver complex software systems

Professional

Effective communication

Team player

Strong problem solver

Good time management

Languages

Serbian/Croatian/Bosnian: Native

English: Fluent

German: B1 Level

Interests

Hill Hiking

Astronomy

Photography

Traveling