

Vesselin Staykov

Sofia, Bulgaria | <https://staykovsoft.com> | email: please send via the website contact form | <https://linkedin.com/in/vesselin-staykov>

Professional Summary

I am a proactive software developer with a strong focus on software reliability, maintainability, and security across the full development lifecycle.

Skills

Programming languages:

- C and C++
- Java
- JavaScript
- TypeScript
- Bash/UNIX shell scripting

Backend:

- Architecture: modular monoliths, microservices
- Databases: PostgreSQL, SQL Server
- APIs & protocols: REST, SOAP, JSON-RPC

Frontend:

- React

DevOps/Infra:

- Docker, Vagrant, Packer

Security:

- Security-conscious development: applying secure coding practices where appropriate
- Authentication & authorization: design and implementation, session management, OAuth2, JWT
- Cryptography & payments: experience with JavaScript and Java cryptographic libraries, payment and card integrations, and custom-encrypted web service communication

Testing & quality:

- Unit and integration testing with JUnit and similar tools; basic frontend testing where needed

OS/Endpoint:

- GNU/Linux, Windows, Android, macOS, iOS

Experience

Staykovsoft EOOD - Software developer & owner

Sofia, Bulgaria | 2019-10 to present

Focusing on innovative as well as security-related work with different clients. Actively using Java, web and UNIX technologies.

Secusmart GmbH (A BlackBerry subsidiary) - Front-end developer (contract via Optimus Search, UK, and Staykovsoft EOOD)

Duesseldorf, Germany | 2019-03 to 2019-09

- I was hired initially as an on-site backend C++ developer in the R&D department but due to shortages on the frontend team, I was quickly asked to urgently shift to a React frontend project.
- Developed and maintained front-end features using React, Redux and plain JavaScript/ECMAScript 6 & 7.
- Primary work was on the frontend architecture and frontend coding of an enterprise configuration management tool for the highly secure communications (including voice) offering of the company. The tool was actively sold to multiple world governments and organizations.
- Redesigned and rewrote the security certificate, cryptography and PKI key management section in the UI and handled the large number of system configuration options for the entire product.
- The product was submitted for NIAP security certification in the US. My work was critical in meeting the certification deadlines imposed by NIAP. If these deadlines were missed, the product would fail to be sold in the US due to the strict security requirements.
- Collaborated with the backend and security teams to integrate REST and JSON RPC APIs and encryption-related functionality.
- Participated in direct communication with the NIAP security certification laboratory in the US. I was one of those responsible for fixing issues based on their feedback.
- A highlight was the development of a significant custom React-based table component for highly customized information.

- Investigated and documented (for the company) React.js best practices, including major architecture directions; best practices for frontend automatic testing (TDD) approaches; best practices for internationalization support.

Staykovsoft EOOD - Software developer & owner

Sofia, Bulgaria | 2017-11 to 2019-02

- Focused on information security investigations, formal security certification, and blockchain self-study, including completing CompTIA Security+ (SY0-501) in 2018-12. (Building on my preceding startup work in security and blockchain.)

Datcroft Games - Backend Architect & Backend Developer (via Staykovsoft EOOD)

on-site Belgrade, Serbia; remote Sofia, Bulgaria | 2016-11 to 2017-11

- Datcroft Games and GameCredits (a startup funded by the former) invited me to urgently architect, develop and maintain a scalable backend system that would be able to process massive web traffic and payment transactions through Big data approaches, including Western bank card transactions as well as popular payment systems in China and India. One of its major functions was to be a digital wallet for the GAME cryptocurrency.

- A major requirement was ultra-high security due to the considerable number of company customers and funds involved.

- In a team of several people – blockchain developers and front-end experts, I personally developed a large standalone backend module in Java & Node.js – specifically, the entire API layer interfacing with the web UI, all the authentication and authorization (including multifactor), handling high-speed Big data database access and interfacing with the other blockchain developers' blockchain handling code (a separate system).

- The product had been in worldwide use and fully Internet facing, open for attacks and exploits, for more than 2 years (as of late 2018) with no successful hack or significant malfunction. I held major responsibility for the monitoring and neutralization of multiple hacking attempts, brute-forcing, and denial of service attacks on the system.

- During bank card processing integrations with the web UI, I worked in close collaboration with Angular 2 developers and implemented the necessary cryptographic handling in client-side JavaScript. A different team also developed separate mobile apps for Android and iOS, and I consulted it on security such as session handling.

- During 2016, shortly after the December launch, US Forbes magazine published an article about the project (please note this is not an advertisement for or an approval of Forbes magazine). A Yahoo Finance article: <https://finance.yahoo.com/news/gamecredits-inc-partners-datcroft-games-150000442.html>

CodepayEU (startup) - Fractional CTO, Full-stack Architect & Developer (via Staykovsoft EOOD)

on-site Belgrade, Serbia; remote Sofia, Bulgaria | 2015-10 to 2016-11

I consulted as a CTO for a startup company focusing on competing with established payment providers such as PayPal but using innovative techniques to disrupt the market. The leadership team was in Germany and Serbia, with financial backing from German investors.

In close collaboration with the non-technical CEO/COO, I was the sole researcher, architect, and implementor/programmer of the company's technical architecture with Big data and stringent security approaches, programming techniques, and non-standard database tools.

A separate but related task was the implementation and full completion of a Minimum Viable Product with both a front-end and back-end, including a management UI. The frontend had similarities to social networks, e.g., Twitter interfaces but had major differences as well. I studied front-end Angular 1.x development extensively. We recruited separate people to work on the mobile ports of the frontend.

Technical University of Sofia - Master of Engineering, Thesis project

Sofia, Bulgaria | 2015-01 to 2015-09

Researching and studying for the thesis (The on-site university degree studies started in 2013 but work on the thesis document started 2015-01.) It involved an in-depth investigation into electronic payment systems and information security. The topic was: "Build an IT security plan for the PayPal company."

Xogito Group - Software developer

Sofia, Bulgaria /remote work with USA offices (New York)/| 2014-04 to 2015-01

- In a team of five people, I worked on a cutting-edge Big data project: an analytic engine for the ingestion and processing of ad-tech data and generating insights. Used in production by the Recruitics company and its business clients such as the popular <http://www.careerbuilder.com> and <http://www.indeed.com>. A single computational process sometimes spanned hours or even days, so it was particularly important that the process be correct and as efficient as possible.

- Hadoop technologies, Apache Pig (raw Hadoop Java and Pig hybrid code), scripting, popular cloud environments

- Due to the extremely high importance of the project, I worked in close collaboration with Xogito's CTO

Vivacom AD - Senior Software Developer

Sofia, Bulgaria | 2012-01 to 2014-04

- In a team of twelve software developers, I was responsible for the development and maintenance (handling service requests) of the enterprise web portal software used by all "Vivacom AD" (vivacom.bg) shops and dealer chains. I passed a multi-month on-the-job training

(with tests) by the Greek telecom consultancy company Cognition (<http://cognition.gr>). Large project; Spring framework; Hibernate ORM; JavaScript; DWR; JBoss Drools; MS SQL

- Participated in a long cross-team, cross-departmental SOA (Service Oriented Architecture) transition (web services; messaging bus; legacy service integrations).
- In a sub-team of two people, participated in the full replacement of the legacy customer contract reporting and printing system with the modern JasperReports.
- Frequent interaction with the Oracle Siebel CRM
- Frequent communication with the Business Planning department (for Electronic Change Proposal writing) and with the large separate QA team; every new feature required every developer to write an engineering change proposal (ECP) document.
- Gained experience with MS SQL. Notable example: managed to investigate and fix a very elusive (to the team) issue involving SQL transaction deadlocks.

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Sofia, Bulgaria | 2008-02 to 2012-01

- development of an advanced spam filter; integration with the Apache James mail server
- Windows services development
- Developed a custom Windows MSI installer via the WiX toolset
- Studied low-level filesystem development

Bianor Services AD - Software developer

Sofia, Bulgaria | 2007-10 to 2008-02

- In a team of three developers and a significant team in Israel, developed full-time on the Israeli flight information app WorldMate; Symbian C++ platform (Carbide.C++ IDE from Nokia). Studied Symbian C++-style custom exception handling; worked on both frontend and backend.

Systems 159 EOOD - Software developer & Owner

Sofia, Bulgaria | 2004-08 to 2007-09

- R&D for an advanced spam filter based on statistical and customizable pattern matching techniques.
- On-the-job training for advanced multithreading (Windows and POSIX varieties); serious training into porting C/C++ code, between disparate Oses (including Cygwin, UWIN, Interix, embedded systems).
- Consulted other local companies and individuals, including pro-bono work for website frontends and backends using Java, PHP, and AJAX.

Fadata AD - Software Developer

Sofia, Bulgaria | 2002-06 to 2004-08

- In a team of three people, worked on a project for the implementation, from scratch, of a Java Virtual Machine for embedded systems (ANSI C and JNI protocol used). I implemented a part of the clean-room JDK class libraries and for assisting the testing process for the VM core.
- Switched teams to a joint-venture company (Aegis-IS JV) between Bulgarian companies Fadata, Teletek and the USA-based EWA (<http://www.ewa.com>). Passed approx. 2-month on-site IT security training in company offices in Washington D.C (USA) and Ottawa (Canada), earning training certificates.
- In a team of three people, performed vulnerability assessment (VA), IT security policy evaluation and produced a written report for the improvement of the IT security in the State Aid department of the Bulgarian Ministry of Finance. All the procedures were separately repeated for the State Aid directorate at the Commission on the Protection of Competition (CPC) as well as the networks in the regional administration. The team delivered the results to a foreign official in the European Union (an observing party of the State Aid directorate who had been writing recommendations for the Bulgarian acceptance to the EU in 2007).
- Developed the C back-end of a network vulnerability assessment tool based on Nmap. The aim was to simplify Nmap usage in certain scenarios and to present custom Nmap output to the user. In addition, I developed extra functionality for LAN vulnerability scanning (functionality which Nmap lacked at the time).
- Published a specialized article (in Bulgarian) in "Bank Information Systems" magazine (printed). Title: "Information Security in the Financial Field". I can provide a digital copy on request.

Kremikovtzi Corporation — Software developer

Sofia, Bulgaria | 1999-05 to 1999-07

- Designed and implemented a software module for a major information system for the monitoring of the steel manufacturing and steel produce expedition. The module had three major functions – parsing text/XML files with information about industrial barter deals, on-screen visualization as a report and paper printing of these reports.
- Developed a DOS Terminate-and-stay resident program for on-the-fly translation of characters between different language codepages to allow laser printers which have support only for a Russian codepage to be used for printing Bulgarian language text, without converting text files on disk. Main programming tools used: Borland C++ Builder 3, VCL and Turbo Assembler.

Education

Master of Engineering in Enterprise Resource Planning Systems — Technical University of Sofia

Sofia, Bulgaria | 2013-2015

English-taught program at the Faculty of Engineering.

Bachelor of Arts in Computer Science – AUBG University

Blagoevgrad, Bulgaria | 1998-2002

All courses were taught in English. Selected coursework: Discrete Structures, Data Structures, Operating Systems, Computer Networks, Database Systems, Artificial Intelligence, Compiler Theory.

Secondary education – English Language High School “Thomas Jefferson”

Sofia, Bulgaria | 1993-1998

Languages

Bulgarian - Native

English - ILR Level 4 (full professional proficiency), C2 (CEFR)

Driving license

Category B (car)

Certifications (Selected)

- CompTIA Security+ (SY0-501), CompTIA; Issued: 2018-12; Expires: 2027-12
- CompTIA Network+ (N10-008), CompTIA; Issued: 2020-06; Expires: 2027-12
- CompTIA A+ (Core 1 (220-1201) and Core 2 (220-1202)), CompTIA; Issued: 2025-11; Expires: 2028-11

The full list of certifications is provided in the Certifications Appendix on the next pages.

Certifications Appendix

This appendix lists all certifications and courses that I have completed.

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Location: Sofia, Bulgaria (Europe; EEA)

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Networking

Credenti al	Issuer	Issued	Expires	Status	Verificati on URL	Notes
CompTIA Network +	CompTIA	2020-06	2027-12	active	https://cp.certmetrics.com/comptia/en/public/verify/credential/JM9PB87N6PV4QBWB	

Security

Credenti al	Issuer	Issued	Expires	Status	Verificati on URL	Notes
CompTIA Security+	CompTIA	2018-12	2027-12	active	https://cp.certmetrics.com/comptia/en/public/verify/credential/GXH1QTH3SGR4QV39	

IT Support

Credenti al	Issuer	Issued	Expires	Status	Verificati on URL	Notes
CompTIA A+	CompTIA	2025-11	2028-11	active	https://comp.certmetrics.com/comptia/en/public/verify/credential/FMZ3DWGR5NF451MJ	

Courses and Other Credentials

The following table lists courses and online assessments / badges / certificates not live-proctored or not delivered via a traditional test center. Unless otherwise noted, all items listed in this appendix have been fully completed and are accompanied by a certificate of completion or a higher-level passed exam certification.

Credenti al	Domain	Type	Issuer	Hours	Issued	Expires	Status	Verificati on / referenc e URL	Notes
C Certified Entry- Level Program mer (CLE-10- 01)	program ming language s	exam	C++ Institute	N/A	2026-03	no	active	https://verify.openedg.org/?id=6CCX.akp4.wRu2	
EU General Data Protectio n	data protectio n	course	TUV SUD Academy	1	2025-11	no	complete d	https://staykovsoft.com/vesselin-staykov/c	Certificat e No.: USA/218 2/31946. The URL

Credential	Domain	Type	Issuer	Hours	Issued	Expires	Status	Verification / reference URL	Notes
Regulation (GDPR) Awareness								ertificate/s/tuv-sud-gdpr-awareness-certificate-2025-11.pdf	is a reference copy; no public verification link from issuer.
AWS Cloud Technical Essentials	cloud	course	AWS (via Coursera)	21 (approx.)	2022-10	no	completed	https://coursera.org/verify/B7QCRAW6PZMP	
CSS - The Complete Guide	frontend development	course	Udemy	23	2022-08	no	completed	https://www.udemy.com/certificate/UC-c970a38a-bc1f-4d0f-a647-285173d51f45/	
Third Party Risk Management	security	course	SecurityScorecard (via SkillJar)	-	2022-08	no	completed	https://verify.skilljar.com/c/tc8u6negtkt	
React - The	frontend development	course	Udemy	48.5	2022-03	no	completed	https://udemy.com/certificate/UC-	

Credential	Domain	Type	Issuer	Hours	Issued	Expires	Status	Verification / reference URL	Notes
Complete Guide								cc750924-c853-41cf-a69f-58ffffea410c	
Spring Boot Microservices and Spring Cloud	cloud/DevOps	course	Udemy	19.5	2022-03	no	completed	https://udemy.com/certificate/UC-b38d783d-7417-4ee5-b08a-18fc0dbc08f4	topics: Spring Boot microservices; Spring Cloud (Eureka, API gateway, Resilience4J); Docker; AWS
Angular - The Complete Guide	frontend development	course	Udemy	34	2022-02	no	completed	https://udemy.com/certificate/UC-13e8fbb3-aef0-4f62-9f8f-07c944138c10	
Effective Programming in Scala	programming languages	course	EPFL (via Coursera)	74 (approx.)	2021-11	no	completed	https://coursera.org/verify/	

Credenti al	Domain	Type	Issuer	Hours	Issued	Expires	Status	Verificati on / referenc e URL	Notes
								ELK2YZCL 2MV5	
Secure Software Design Specializ ation	security	specializa tion	Universit y of Colorado (via Coursera)	4 weeks, 1-2 hours/we ek	2021-08	no	complete d	https://c oursera.o rg/verify/ specializa tion/2J87 R477W5 Y3	a 4- course program
Blockchai n Scalabilit y and its Foundati ons in Distribut ed Systems	blockchai n	course	Universit y of Sydney (via Coursera)	11 (approx.)	2021-05	no	complete d	https://c oursera.o rg/verify/ W84V9V 9GXNLX	
Program ming with Google Go Specializ ation	program ming language s	specializa tion	Universit y of California , Irvine (via Coursera)	Approxi mately 1 month at 10 hours a week to complete	2021-05	no	complete d	https://c oursera.o rg/verify/ specializa tion/T8N X5WN3T TYK	a 3- course program
Secure Coding Practices Specializ ation	security	specializa tion	Universit y of California , Davis (via Coursera)	Approxi mately 2 months at 10 hours a week to complete	2021-05	no	complete d	https://c oursera.o rg/verify/ specializa tion/NJX GQDSAV G49	a 4- course program

Credenti al	Domain	Type	Issuer	Hours	Issued	Expires	Status	Verificati on / referenc e URL	Notes
IBM Data Science Professio nal Certificat e	data science	professio nal certificat e	IBM (via Coursera)	Approxi mately 4 months at 10 hours a week to complete	2020-12	no	complete d	https://coursera.org/verify/professional-cert/FNEAFYC36AH2	a 9- course program
Python 3 Program ming	program ming language s	specializa tion	Universit y of Michigan (via Coursera)	Approxi mately 3 months at 10 hours a week to complete	2020-07	no	complete d	https://coursera.org/verify/specialization/99U8NSNECKYB	a 5- course program
Moderniz ing Java EE applicati ons	enterpris e Java	course	IBM (via Cognitive Class)	-	2020-06	no	complete d	https://courses.cognitiveclass.ai/certificates/71f20964ee8d4222aaebe00d11524380	
Blockchai n essential s	blockchai n	course	IBM (via Cognitive Class)	-	2020-04	no	complete d	https://courses.cognitiveclass.ai/certificates/a631c6de4b7a4ee798e0bc	

Credenti al	Domain	Type	Issuer	Hours	Issued	Expires	Status	Verificati on / referenc e URL	Notes
								1c4d9090f8	
Introduct ion to Data Science Specializ ation	data science	specializa tion	IBM (via Coursera)	Approxi mately 1 months at 10 hours a week to complete	2020-03	no	complete d	https://coursera.org/verify/specialization/2BJAGJR37XFR	a 4- course program
Blockchai n Revolutio n Specializ ation	blockchai n	specializa tion	INSEAD institute (via Coursera)	Approxi mately 2 months at 10 hours a week to complete	2019-10	no	complete d	https://coursera.org/verify/specialization/54R3VZTHWJ4D	a 4- course program
IBM Blockchai n Foundati on for Develope rs	blockchai n	course	IBM (via Coursera)	-	2019-01	no	complete d	https://coursera.org/verify/YY5E3RBMZP6X	
IT security training	security	course	IIT Corp. (Washing ton, D.C.) / ROGERC O, Inc.	-	2003-09	no	complete d		a multi- day course; topics: forensics, incident response , SOC operatio ns, security

Credenti al	Domain	Type	Issuer	Hours	Issued	Expires	Status	Verificati on / referenc e URL	Notes
									policy & planning
Introduct ion to SSE- CMM	security	course	ISSEA	-	2003-08	no	complete d		a multi- day course
Canadian CERT IT security	security	course	Canadian Compute r Emergen cy Response Team (Ottawa)	-	2003-08	no	complete d		a multi- day course: topics included different security aspects, including Common Criteria, FIPS.