

Szymon Zinkowicz



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SUMMARY

Motivated generalist software engineer with 5 years of professional experience and 7 years counting education. Expertise in creating and implementing projects with Python, HTML, CSS, and JavaScript. Highly interested in broadening horizons including High Performance Computing and CyberSec. Skilled in developing and debugging computer programs and applications. Shines when combining domain specific knowledge with tech stack.



SKILLS

Front end	Back end	Testing	DevOps	System	Machine Learning	Software Systems
HTML	Python	Selenium	Docker	Linux	Keras	Websecurity
CSS	Py4Web	Python/Java	Docker Swarm	Bash	TensorFlow	Design Patterns
JavaScript	Flask	Webdriver	VMware	Git	SciPy	Design Principles
TypeScript	NumPy	Jupyter	Ansible	Make	MatLab	Attribute DD
jQuery	Matplotlib	PyTest	CI/CD	RTOS	AI Prompting	UML
Tailwind	Seaborn	Pentesting	GitLab	Networking		Mermaid
Bootstrap	Pandas	E2E	NGINX			Visual Paradigm
Vuetify	PostgreSQL	XSS	Keycloak			
Vue.js	MySQL	Gherkin	Nextcloud			
Svelte	Redis	Behave	Loki			
Vite	REST		Prometheus			
Mobile	Postman		Grafana			
Dart/Flutter	C/C++		Thanos			
Android	Compilers		AWS			
	PHP		Kubernetes			
	NodeJS		EKS			
	Java					
	JUnit					

EXPERIENCE

Core Engineering Data Engineer – Full Stack

Goldman Sachs Poland Services sp. z o.o.

4m. August 2024- Current, Poland, Warsaw

- Implementing features for Legend language and Legend Studio platform. (Java, Pure, Legend)
- Collaborating with cross-functional teams to streamline the ingestion and processing of equity transaction data from multiple exchanges. Implemented checks for improving data quality(Java, Spring, Bash).

Software Engineer

IASON, Technesthai

1y. 4m April 2023 – August 2024, Italy, Milan

- Full stack development of web based Market Analysis tools for non-maturing risk modeling using PostgreSQL, HTML, CSS, Bootstrap, Vuetify, JavaScript, Vuejs, C++, C#, ASP.NET Core and Entity framework.
- Optimized C++ programs on Intel CPUs with vectorization and multiprocessing (OpenMP).
- Observability tools integration (Dapr, OpenTelemetry, AWS X-ray, Zipkin) with AWS Kubernetes EKS.
- Provided monitoring with Docker, Prometheus, Thanos and Grafana for resource utilization.
- Worked closely with QA team and product manager to deliver full **Risk Analysis** solution for banking.

Python Web Developer **Gter Srl.**

1y. April 2022 – April 2023, Italy, Genoa

- Full stack development using Python, PHP, PostgreSQL, HTML, CSS, Bootstrap, JavaScript, Svelte.
- Building environments with Docker, Docker compose, Redis, NGINX, Process Manager 2, Apache.
- Drove improvements independently on point-cloud calculation projects with 50% of increase of computing performance.
- Maintained legacy PHP services, containerized and orchestrated them with Docker.
- Provided data analysis and data visualization with NumPy, Matplotlib, Seaborn.

Software Engineer **Danieli Automation** **Genoa**

5m. December 2021 - April 2022, Italy,

- Developed the automation software and SCADA systems for hot steel mill plant with funding of 400 000 000\$.
- Validated the coding of the software applications with testing sessions with simulation units (TIA portal, Codesys, Java JUnit, Python, PyTest).
- Prepared scripts to optimize team workload concerning databases and technical documentation (Pandas/Tabula).

Junior Cargo Scanner Installation Engineer **Nuctech Company Limited** **Warsaw**

3m. June 2021 - September 2021, Poland,

- Installed, tested, debugged hardware and low level PLCs (C/C++, Structured Text) on multi international grounds.
- Conducted business meetings with customers together with Project Managers. Cooperated with customers and subcontractors.
- Analyzed project documentation: reporting errors, finding solutions to improve project implementation.

Programming Trainer **Kids Coder Lab**

2y. June 2019 - June 2021, Poland, Warsaw

- Conducted IT workshops, classes on the basics of Python, Scratch and algorithms. Loved by parents and enjoyed by kids (age 5-16). Overwhelmingly positive feedback.
- Conducted individual mathematics and physics classes.

EDUCATION

Master of Science in Software Security & Engineering

Minor in Software Engineering • University of Genoa • Italy, Genoa • Ongoing • Expected 2025

Master of Science in Robotic Engineering

University of Genoa • Italy, Genoa • Changed

Bachelor of Engineering in Automatic Control and Robotics

Minor in Automation and Robotization of Manufacturing Processes • Warsaw University of Technology • Poland, Warsaw
• 2020 • 5 for final diploma exam

CERTIFICATIONS AND ONLINE COURSES

IELTS Academic

IELTS • 2021

Certified in English language proficiency with overall score of 8.0 (C2)

Object-Oriented Data Structures in C++

University of Illinois, Coursera.org

Programming Object Oriented C++ with memory data structures

Algorithms & Data Structures

Frontendmasters.com

Course using Typescript on advanced data structures by *the* famous ThePrimeagen

INVOLVEMENT

Product Owner

University of Genoa • November 2023 - April 2024

- Development of a game “**Meet Your Tester**” aimed at making software testing fun and accessible, my role has been multifaceted and dynamic. I have been leading a team of eight students. Working within the Godot engine and adhering to a fully-fledged Scrum framework is an intricate blend of art, design, and engaging game mechanics, I have taken on the responsibilities of a **game director**.
- I played a critical role in stakeholder presentations, effectively communicating our progress and integrating feedback into our development strategy.

Deputy manager

Warsaw University of Technology • UFGbySPD • January 2019 - June 2023

- Managed group of 6 students with achieved goal of providing technological documentation for manufacturing experimental friction-welding machine. Presented visual analysis for samples acquired with ImageJ and OpenCV for ultrafine-grained metal materials.

ACADEMIC COURSEWORK

SOFTWARE SECURITY & ENGINEERING - SOFTWARE ENGINEERING

First Year:

- **Distributed Computing**
Explored fundamental design principles for distributed systems with a focus on technologies for reliability, availability, and fault tolerance, using **Python, PySpark, Zookeeper** and **Apache Kafka**.
- **Software Systems Design and Modeling (Grade: 30L)**
Hands-on experience in designing and modeling software systems, utilizing UML tools and Agile methodologies, enhancing communication and lifelong learning.
- **Machine Learning and Data Analysis**
Detailed study of data analysis techniques using Python and R for extracting information to support decision-making, including practical applications with **MATLAB, Python, Matplotlib** and **Keras**.
- **Network Analysis**
Course covers algorithms and techniques for large-scale graph analytics, including centrality measures, connected components, graph clustering, and graph properties for random, small-world, and scale-free graphs with tools like **Python, NetworkX** and **Gephi**.
- **Functional and Security Testing Techniques**
Acquired skills in functional and security testing of software systems, especially for web and mobile apps, using **Selenium, Java, JUnit, Python, PyTest** and **PHP**.
- **IT Project Management**
Learned fundamental concepts of IT project management, developing skills for effective project management and leadership for **Agile/Waterfall** projects.
- **Mobile Development**
Focused on designing and developing mobile apps with emphasis on Android development using **Android Studio, Java, Flutter** and incorporating features like GPS and sensors.
- **Internet of Things**
Learned IoT development methods, protocols, and architectures using **MQTT, CoAP, NodeRED** and **NodeJS** for developing distributed and mobile applications.
- **Virtualization and Cloud Computing**
Introduced to the foundations of virtualization and cloud technologies, focusing on **VMware, GCP, AWS, Docker** for implementing various virtualization techniques. Utilized advanced DevOps tools like **Ansible, NextCloud, Keycloak** for deploying various services (**Drupal, WordPress, NGINX**)

Second Year:

- **Blockchain and Distributed Ledger**
Investigated the security and architecture of blockchains, focusing on Ethereum and Hyperledger for developing decentralized systems using **Metamask, Sepholia, Solidity, Web3Js, RemixIDE**.
- **Computer Games**
Explored game development and design using **C#/Unity**, including both theoretical and practical aspects. Shading, rigging, animating, game logic, game frameworks, mobile(Maui)/desktop(XNA, Unity).
- **High Performance Computing**
The High Performance Computing course focuses on the main aspects of modern high-performance computing systems (pipeline/superscalar processors, shared-memory/message-passing multiprocessors, vector processors, GPUs) and basic programming skills for high-performance computing (**C/C++, cache optimization, compilers, OpenMP, CUDA**).
- **Capstone Project (Grade: 30L)**
The Capstone Project course focuses on the development of a realistic project, following a given model of development process, encouraging to think critically, learn how to be autonomous, solve challenging problems, and develop soft skills, as team working, communication, and self-time management. (More in [Involvement](#))

Interests

Learning the differences between pokemons and bigdata, 3D modeling, Gamedev