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| Alexey Bachurin  Software Developer (Python & Web Development) | [bachurin.alex@gmail.com](mailto:bachurin.alex@gmail.com) • +351961072567  [LinkedIn](https://www.linkedin.com/in/abachurin-loki1974) • Almancil, Portugal |

***Technically astute professional with substantial experience of architecting and developing innovative software solutions, leveraging advanced practical knowledge of latest programming languages and frameworks.***

Solid foundation in full-stack web development, including writing clean, bug-free, and efficient code; creating dynamic and responsive user interfaces; and leading several technical projects. Experienced in working with SQL and NoSQL databases, including MongoDB, to efficiently manage data and ensure optimal performance across web applications. Excel at driving application enhancements, adding new functionalities, and creating system components. Notable key strengths in pinpointing and resolving technical glitches swiftly. Trilingual professional with excellent communication skills in English, Russian, and Portugues; with demonstrated critical-thinking, and attention-to-detail capabilities.

Technical Proficiencies

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| Programming Languages: | Python, TypeScript, JS/CSS/HTML |
| Python Libraries: | FastAPI, Dash, Reinforcement Learning, Machine Learning |
| JavaScript Frameworks: | React |
| Databases: | SQL, MongoDB |

Career Experience

NLMK Trading, Lugano 2021 – 2023

Full Stack Developer

Conducted a comprehensive review and testing of the pre-existing Python codebase for an old substantial Big Project. Architected and developed both the frontend and backend components entirely from scratch for two distinct software projects. Deployed software solutions on GitLab, Openshift, and S3, working collaboratively with IT specialists. Recruited, instructed, and nurtured a highly skilled team of junior developers to foster growth and enhance technical skill set.

* Designed and developed a modern, multi-user application for an international metal trading firm, encompassing both backend, frontend, and worker components. Built the project in Python, utilizing Dash and FastAPI, followed by a subsequent rewrite of the frontend component in React JS, ensuring successful execution within a one-year timeframe.

Self-Employed, Location 2018 – 2022

Python Developer – Freelance

Wrote clean, maintainable, and efficient Python code to develop robust software applications. Conceptualized and implemented a Reinforcement Learning algorithm to address "chip placement problem," contributing to innovative solutions in chip design. Identified and implemented performance optimizations and improvements. Created and maintained technical documentation for reference and future development.

* Engineered a Strategy Simulator and Trading Bot featuring a user-friendly web interface. Developed the application using Dash Python, packaged within a Docker container, and operated from an AWS EC2 instance.
* Authored a highly effective market-making algorithm through comprehensive research that incorporated cutting-edge methodologies in the field of market-making.
* Personal showcase project: <https://robot2048.com>
  + Programmed and implemented a Reinforcement Learning robot using Python, enabling it to autonomously learn and excel in an old application-based game.
  + Curated an intuitive and visually appealing user interface for the robot using React TypeScript, enhancing the overall user experience.

Rayleigh Research, Helsinki 2019 – 2021

Software Developer

Designed, tested, and maintained high-quality software applications using latest programming languages and technologies. Wrote sophisticated market-making algorithms specifically tailored for cryptocurrency trading, employing Scala to implement these advanced solutions. Analysed complex technical problems and propose innovative solutions.

* Innovated a Financial Market Agent-based Simulator using Python, facilitating comprehensive simulations and analyses of financial markets.

*Additional experience includes various roles in equity trading at different investment banks in Moscow and London.*

Education

Master of Science: Applied Mathematics | Moscow State University - Moscow, Russia