

DRAGOS IONITA

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LANGUAGES:

- Haskell
- nix
- golang
- TypeScript
- C
- Java
- PHP
- Python

TECHNOLOGY:

- Linux
- nixOS
- Kafka
- RabbitMQ
- MySQL
- Postgres
- SQLite
- Redis
- Kubernetes
- aws
- Docker

STANDARDS:

- TCP/IP
- HTTP
- TLS
- JSON
- XML
- Avro
- Prometheus
- IEC104

SOFTWARE ENGINEERING PRACTICES:

- Security Configuration
- Testing
- Profiling
- Monitoring
- Model checking
- Version control
- Compilers
- Type Systems
- Algorithms
- Data Structures
- Databases

SUMMARY:

Developed and maintained backend systems for home devices and apps participating in a Virtual Power Plant, synchronizing power grid operations for aFRR and FCR; wrote PCB manufacturing software in a multinational company.

OBJECTIVE:

To design and implement robust server-side systems utilizing statically-typed programming languages like Haskell; and to continually strive for technical excellence through elegant and simple solutions.

WORK EXPERIENCE:

(2026 – 2026) **Backend Developer — iliad**
Employer: Telecom Operator (Milan). Responsibilities:

- Maintained legacy backend systems with an eye towards refactoring and upgrading existing code to improve performance and scalability *(PHP, MySQL, Symfony, phpstan)*

(2022 – 2025) **Backend Developer — tiko Italia**
Employer: Power Grid Flexibility Service Provider (Milan). Responsibilities:

- Developed scalable services that handle data from tens of thousands of devices; such as the reporter service which aggregates incoming reports from a tree of VPP (Virtual Power Plant) nodes. The reporter service can automatically reconfigure itself based on the topology inherent in received Kafka messages. Implemented an IEC 60870-5-104 protocol library, a protocol similar to TCP that ensures a connection presence check. Wrote tests for error conditions such as message counters, timeouts and message processing lag *(Haskell, Java, nix, Avro, GraphQL, HTTP, IEC104, JSON, Prometheus, TCP/IP, TLS, ArgoCD, Avro schema, Hazelcast, Kafka, Kubernetes, MQTT, OpenSSL, PagerDuty, Postgres, Prometheus, SQLite, Thrift, Toxiproxy, Vault, Zabbix, gitlab, protobuf)*

(2021 – 2022) **R&D Software Development Engineer — Continental Automotive Systems**
Employer: Automotive Software R&D Department (Sibiu, Romania). Responsibilities:

- Developed automotive R&D software for the ADAS safety system, designed in-vehicle technologies to enhance road safety and the driving experience by helping to prevent accidents caused by human error *(C++, Python, Visual Studio, Win32 API)*

(2016 – 2021) **Test Engineer (Code Reviewer) — Continental Automotive Systems**
Employer: Automotive PCB Manufacturing Plant (Sibiu, Romania). Responsibilities:

- Developed support software for production lines and testing; supported team through static analysis of C source code. Developed a web-based intranet tool that keeps track of code reviews and checklists; the tool parses C code before the pre-processor stage and extracts open points present as comments in the source code, and it presents them to users in a centralised web interface *(C, CPP, PHP, Haskell, QA-C, Bugzilla, Oracle, SVN, JavaScript, htmx, SQLite)*

(2011 – 2015) **Web Engineer (Self-employed) — General Automated Systems Ltd.**

- Client: Logistics Planning Company. Responsibilities:
  - Designed and implemented a multi-step route data processing pipeline for inputs provided by customers from the logistics industry; processed various variants of the

LANGUAGES:

English
Italian
Romanian

Vehicle Routing Problem (VRP) with additional constraints *(PHP, node.js, JavaScript, Redis, RabbitMQ, HAProxy, nginx)*

- Client: Medical Data Aggregator. Responsibilities:
  - Developed PHP command-line interface tools to normalize large medical data files from CSV format into entity/relation database tables *(PHP, MySQL, Linux)*
- Client: Online Store Provider of Customised Promotional Material. Responsibilities:
  - Designed and developed a backend component responsible for defining promotional campaigns tailored to specific customer profiles; implemented Sphinx full-text search indexing functionality *(PHP, JavaScript, MySQL, Sphinx)*

(2011 – 2011) **Intern (M.Sc. thesis) — Serious Toys / PHILIPS**
Employer: Educational Toy Spin-Off (Den Bosch, Netherlands). Responsibilities:

- For my M.Sc. thesis, "Binding Time Analysis for Program Specialization in the ESPranto Synchronous Parallel Language", I wrote a formal description and re-design of the programming language; specified ways to assign binding times to expressions, i.e., if they are to be evaluated at compile time or at runtime *(Haskell, Linux, LaTeX, Embedded systems)*

(2004 – 2008) **Co-founder — Various companies**
Employer: E-commerce startup; Rich internet application startup (Bucharest, Romania). Responsibilities:

- Designed database schemas and business processes for the customers of our proprietary e-commerce solution. Designed interactive multimedia UX for websites; front-end development skills utilized. Received 2005 Internetics web award for a band website *(PHP, Actionscript, Adobe Flash Player, Apache web server, CSS, HTML, Linux, MySQL)*

EDUCATION:

(2009 – 2011) **M.Sc. Computing Science — Utrecht University** — Utrecht, Netherlands

- Completed courses in functional programming, static type systems, generic programming, program verification ("SPIN model checker"), compilers, and database architecture; many course assignments were solved using Haskell *(Haskell, Erlang, ml, Functional programming, Compilers, Databases, Type systems)*

(2004 – 2008) **B.Sc. Computer Science — University of Bucharest** — Bucharest, Romania

- Completed a Bachelor's degree with a thesis focused on the web development framework and e-commerce system developed; followed foundational Computer Science and Math courses, including Object-Oriented Programming, operating systems, Automata theory, Turing machine theory, and rewrite systems *(C, C#, C++, CafeOBJ, Java, JavaScript, PHP, Linux, Apache, MySQL, OOP)*

AWARDS:

- (2008) Received "Best Celebrity Website" award at Internetics; the most prestigious web competition in Romania
- (2004) Second Place, InfoEducatie Contest; sponsored by the Romanian Education Ministry