IOANA VEREBI

SENIOR SOFTWARE ENGINEER

PROFILE

I am passionate about all things software, especially static analysis and tool development. I've applied my software refactoring, program analysis and requirement analysis skills to projects that span different areas, be it IDEs, decentralised data privacy systems or clinical trial platforms.

WORK EXPERIENCE

2018 - now

DEVELOPMENT EXPERIENCE CRAFTER, CONSULTANT
Feenk Gmbh / Remote

Feenk is building a new approach to development environments, to empower developers to quickly and easily adapt it to specific problems and contexts. It's called "moldable development environment" and it's implemented in Pharo, a Smalltalk dialect.

As a software engineer and consultant, I am part of a team of nine people that build the Glamorous Toolkit environment, which consists of a range of tools and techniques for improving the way we build, comprehend and evolve software. In addition, I also provide consultancy to companies in the area of software re-engineering.
Technologies used: Pharo (IDEs and domain specific language development), Javascript (frontend development and external service integrations), Python (data scraping).

2018 - now

TECH SMITH
PolyPoly Gmbh / Remote

PolyPoly is an early stage startup that builds tools in the area of data privacy. Their mission is to make the digital shadow accessible to everyone: data from a wide variety of online sources - including social media and e-commerce, as well as personal and the users hardware (smartphone, computer) are combined with data forwarding analysis.

I worked with PolyPoly on building the next tools for data privacy and transparency. The greatest challenge that we tackled was making data privacy and data security with a decentralised concept.
Technologies used: Pharo (modelling), Python and Javascript (data gathering and reverse engineering, React Native (user engagement)

CONTACTS

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EDUCATION

2012 - 2018
PHD CANDIDATE
Politehnica University of Timișoara
Topic: Refactoring Plans and Simulations

2009 - 2011
MASTER IN SOFTWARE ENGINEERING
Politehnica University of Timișoara
Topic: Advanced Inspection Mechanisms

2004 - 2009
DIPL. ING. IN COMPUTER AND SOFTWARE ENGINEERING
Politehnica University of Timișoara
Topic: Automation of Complex Design Restructurings

SKILLS

- Frontend and Backend Development
- Mobile App Development
- IDE development and Static Analysis Tools
- Software Architecture and Design Patterns

WORK EXPERIENCE CONTINUED

SOFTWARE CONSULTANT, FREELANCER
2019 - now
Ioana Verebi PFA / Remote

As a freelance consultant, I am involved in the whole product lifecycle and collaborate mostly with startups, providing custom development, product management and requirements analysis for a wide range of products.

My current clients are a Singapore startup that builds a workflow-based collaboration platform (cleversort.com) and a US based ticket reseller, for which I am building a trading platform.
Technologies used: React Native, React (UI), Firebase (serverless), NodeJs, Python (data scraping).

SOFTWARE TECHNICAL LEAD
2014 - 2018
Cmed Technology / Timișoara

Cmed Technology has started building a whole new clinical data suite in 2014. The platform is an ecosystem of mobile and web apps that leverage data science and artificial intelligence to offer better ways of visualising, collecting, managing and forecasting data in a clinical trial.

My role in the company was to lead project implementation, discussing and clarifying requirements, creating stories that reflect these requirements, ensuring code quality, giving estimates and coordinating the team to ensure the deadline was met.
Technologies: Javascript on the client side and Python and SQL on the server side. The main frameworks and libraries that I used were React, Redux and Flask.

STARSHIP INNOVATION ALUMNI
2018
EIT Health Starship / EU

StarShip is an EIT Health educational initiative in collaboration with leading European health industrial partners – led by the University of Coimbra, IESE Business School, the RISE (Research Institutes of Sweden) and Instituto Pedro Nunes together with 6 partnering companies.

I was accepted into a year long program that used a blend of different educational approaches, with the goal of innovating in the health sector. I was part of a highly skilled multidisciplinary team and the result of this innovation bootcamp was a prototype medical device that detects foot ulcer.

PHD CANDIDATE
2012 - 2018
Politehnica University / Timișoara

The goal of my research was to bridge the gap between design flaw (antipattern) detection and correction. The idea was to provide a lightweight method of simulating high-level code transformations, on a model of the source code. This enabled the developer to get a much faster feedback on its envisioned corrective solution and to also experiment with different refactoring solutions. The feedback is expressed in how much the severity of a problem is reduced and is also quantified in a technical debt score, computed for the entire system.

GITHUB
/ ioanaverebi

FACEBOOK
/ ioanaverebi

LINKEDIN
/ ioanaverebi

AWARDS

2010
ANITA BORG SCHOLARSHIP
Google
One of the 58 finalists (out of more than 600 applications) of the Google Anita Borg Memorial Scholarship Europe, the Middle East and Africa

2014, 2016
CMED STAR AWARD
Cmed Technology
The award recognises outstanding individuals that had a positive impact on the business

2014 - 2017
RESEARCH SCHOLARSHIP
Ministry of Education, EU
PhD financing by strategic grant POSDRU/ 159/1.5/S/137070 (2014)

COMPETITIONS

- HackTM (2018): Winner of the Best Mobility solution for a dooming solution based on machine learning.

- Nasa Space Apps Challenge (2017): 1st prize for a concept application that uses machine learning to track bird migration.

- EU Hackaton (2016): 2nd place for a concept speech to text app to help everyone navigate copyright legislation.

WORK EXPERIENCE

PARTNER, SENIOR SOFTWARE ENGINEER
2009 - 2014
INTOOITUS SRL / Timișoara

Intooitus was a spin-off company that four of my research colleagues and me founded in 2008. It was focused on developing innovative tools for assessing software quality grounded in state-of-the-art research. During the five years spent at Intooitus, I made essential contributions to growing Intooitus from a startup with zero clients and a research prototype, to one whose products were used by thousands of developers in several Global Fortune 500 companies including Siemens, Alcatel-Lucent, Sandia National Labs and Continental.

As an engineer, I was involved in all customisation projects as well as in the creation of Intooitus' commercial off-the-shelf products: inFusion and inCode. Over a span of five years, I was one of the senior developers who designed and implemented together over 80% of the entire code-base of Intooitus. I was also actively involved in requirements negotiation, customer communication as well as in research activities.

STUDENT COORDINATOR, RESEARCHER
2006 - 2017
LOOSE Research Group / Timișoara

The LOOSE Research group is focused on the area of software maintenance and evolution of object-oriented software systems.

During my time at LOOSE, the main project that I worked on was inCode, an Eclipse plugin for quality assessment, fully integrated in the development life-cycle, under the supervision and guidance of Prof. Radu Marinescu. As a student coordinator, I mentored and offered guidance to students interested in software quality assurance, as they built their diploma projects on top of the platform developed within Loose. I worked an average of six months with each of the students that I mentored.

PROGRAMMING LANGUAGES

- Javascript, HTML, CSS
- Python, Java, Lisp, C, C++, C#
- Pharo
- SQL

TECHNOLOGIES

- Web: React (hooks), Redux, HTML, CSS, Webpack, Mocha, Chai, Google APIs (sheets, maps, etc), Crashalytics
- Mobile: React Native
- Server side: Python (Flask), NodeJS, Scrapy, Docker, Bitbucket Pipelines
- Tool Development: VS Code extensions, Pharo, Eclipse, ESLint
- Databases: PostgreSQL, Mongo, Redis, Neo4J, Firebase, Firestore, Redis, Sequelize

METHODS AND PROCESSES

- Example Driven Development
- Moldable Development
- Software architecture, Re-architecture
- Design and Architectural Patterns
- Agile, Continuous Integration

SPOKEN LANGUAGES

- Romanian (native)
- English (fluent)
- German, Spanish, French (basic)