



ALEXANDRU RUSU

Senior Flutter Developer • Contractor • Freelancer

CONTACT



Bucharest, Romania

in/alexgrusu

alexgrusu

Alexandru Rusu

SKILLS

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|---------------|---------|
| Flutter | 4 years |
| Dart | 4 years |
| Python | 7 years |
| C | 7 years |
| Linux | 7 years |
| Research | 7 years |
| Architectures | 5 years |
| Firebase | 4 years |
| Docker | 1 year |
| Microservices | 1 year |

EDUCATION

University Politehnica

PhD in Information Technology

Bucharest, 2018 - 2022

University Politehnica

MA in Wireless Communications

Bucharest, 2016 - 2018

ABOUT ME

I am a Senior Flutter Developer / Contractor / Freelancer with **7+ years of experience**, only interested in remote work

With a demonstrated history in the information technology and services industry, I use my expertise to identify & implement clients' needs with regards to their software solutions.

Drop me a message if you think my expertise could help your organization!

WORK EXPERIENCE

Senior Flutter Developer

Nov 2021 - Apr 2022

Publicis Sapient

The client, a digital transformation company helping businesses around the world with technology solutions, encountered difficulties in delivering a Financial application, due to lacking the technical expertise required to launch such a project.

- **Ensured 100% successful project delivery**, enabling the client to win the project against the competitor, by implementing the planned features according to the architecture.
- **Achieved 100% application stability** by refactoring the authentication, network and navigation managers and by **reaching 90% code coverage** across the whole features of the project.
- **Increased UX** of login and payment journeys **from 30% to 100%**, ensuring a **1 second authorization** by implementing a biometrics manager by allowing the UI to support biometrics.
- **Reduced the DevOps costs to virtually 0** by eliminating the need to provide a new build version when only the text of the application changes by architecturing a translation system and proposing a user-friendly way to update content.

Skills: Flutter, Dart, Firebase, GraphQL, REST, Unit Testing, Analytics, Crashlytics

Senior Flutter Developer (Architect)

Dec 2020 - Sept 2021

EpsilonBuddy

The client, a mental health clinic offering a hotline to people experiencing panic attacks, was struggling to keep up with the increasing demand of calls caused by the COVID-19 lockdown due to having very few available agents and the lack of an application for offline support.

- **Decreased the high overload from call centers, from 10000 calls per day to only 500** by designing and developing a cross-platform mobile application that offers offline support by implementing domain-driven design principles and by using the Flutter framework.
- **Increased the visibility of the clinic** in the digital world, **reaching 1000 new users and still growing by 10 users per day** by implementing high-efficient exercises for panic attack support and a high-intuitive easy to use UI.
- **Ensured a maintenance cost that is less than 20\$/month** by in-depth researching the proper solutions for cloud services by using an HLS based server that optimizes the consumed bandwidth.

Skills: Flutter, Dart, Python, Nginx, Firebase, RevenueCat, AWS, DDD, HTML, CSS, Git, Google Console, App Store Connect.

Senior Flutter Developer

Feb 2020 - Dec 2020

Venus Construction

The client, a real estate constructor that builds ready to move in flats, experienced difficulties in managing a large number of complaints with lots of information due to the lack of a digital solution.

- **Drastically reduced the amount of time spent to manually organize the complaints by at least 16 person-hours** by designing and developing a highly intuitive application that was custom-tailored by closely communicating with the client to understand his needs and to empower his business.
- **Eliminated loss of information and increased the complaint's success rate from 70% to 100%** by building a well-organized database structure and by developing follow-up mechanisms, notifications, and monitoring solutions.

Skills: Flutter, Dart, Firebase, Python, Django, DDD, Git

● **Senior Python Engineer (Researcher)** July 2019 - Jan 2020
Rohde & Schwarz Topex - Telephony Gateway

The client, a manufacturer of Air Traffic Control Communications systems, encountered difficulties in delivering one of his main products due to the lack of an algorithm for eliminating voice echo, that could fit in a new hardware component.

- **Ensured the client's position on the market** of 1000 potential clients by designing and developing a **4x faster line echo cancellation (LEC)** algorithm compared to one of the obsolete gateways by highly relying on my analytical and research skills and by obtaining 2 worldwide scientific patents for the developed solution, that strengthen the client's image even more.

Skills: Python, C, Linux, Unit Testing, Test Benches, Research, Data Processing, Data Analysis, Git

● **Senior Linux Developer** Jan 2019 - June 2019
Rohde & Schwarz Topex - Radio Server

The client, providing solutions for the air traffic operators market, was unable to fulfill the demands of one of the big customers due to a server lacking the capacity to handle a high number of simultaneous data streams.

- **Obtained a 2x faster application**, handling more than 1000 simultaneous calls (compared to 600 previously) by analyzing in-depth the source code to identify the bottlenecks by redesigning parts of the software by optimizing the audio conferences routines.
- **Ensured 100% stability of the server** by implementing over 120 new failure control mechanisms.
- **Dropped the memory usage from 70% to only 12%** of the total memory by redesigning the internal data structures and by optimizing allocated memory in certain conditions.

Skills: C, Linux, Data Processing, Data Structures, Architectures, Microservices, Code Optimization, SVN

● **Senior Python Engineer (Researcher)** Jan 2018 - Dec 2018
Rohde & Schwarz Topex - Signal Processing

The company, developing Air Traffic Control Communication systems, was unable to fulfill the demands of their main clients, due to the lack of a solution that can detect multiple transmissions initiated by different airplanes.

- **Drastically reduced the probability of erroneous decisions by 99%** even when the signal to noise ratio drops down to 0dB by innovating with a high-performance algorithm by developing features that characterize the content of the data as much as possible to the human hearing.
- **Reduced the data required for the algorithm from 1000ms to only 300ms** by optimizing the input by designing a custom voice detection algorithm that ensures the processing of useful data only.
- **Increased the number of simultaneous calls** that the system could handle **from 200 to 600 calls** by optimizing the memory allocated for the algorithm and by re-using the already computed features.

Skills: Python, C, Unit Testing, Test Benches, Research, Data Structures, Data Processing, Data Analysis, Git

● **Senior Linux Developer** Nov 2016 - Dec 2017
BEIA Consult International

The client, an important telecommunication systems distributor from Romania, was struggling with a high number of complaints due to the difficulty to install an incomplete solution for telemetry data monitoring.

- **Reduced the setup time from 4 hours of hands-on to 15 minutes** of automatic installation by ensuring an easy-to-install solution by using Docker and Python to automate the entire process.
- **Completed the delivered solution** by handling 100% of the missing functionalities by understanding the client's needs by designing and developing the software that ensures voice communication between SIP phones.

Skills: C, Linux, SQL, Docker, Adcon, Git

- **Senior Python Engineer**

Nov 2015 - Dec 2016

Research Center on Communications and Signal Processing (3CPS)

The client, one of the main research laboratories of University Politehnica of Bucharest, delivering hardware solutions for the astrology market, was unable to fulfill the requirements of an end client, due to the high cost of the software that they had to buy and use for a specific platform.

- **Dropped the price to \$2k per hardware unit** by developing the software according to the Software Defined Radio methods by using the GNU-Radio software platform and by integrating open source solutions.

Skills: Python, C, Linux, GNU Radio, Data Processing, Data Analysis, Git

- **Senior C++ Developer (Researcher)**

Jan 2015 - Oct 2015

FotoNation

The client, a high-end company that innovates and delivers the next generation of computational imaging algorithms for photo cameras, was not able to reach the video cameras market with the current solution stack due to a poor-performance pedestrian detection algorithm.

- **Reduced the processing time from 500ms per frame to 50ms per frame** by developing real-time pedestrian training and classification mechanisms by analyzing and researching the main advantages of the Aggregate Channel Features (ACF) toolbox (developed by Piotr Dollar).

Skills: Matlab, C++, Image Processing, Data Processing, Data Analysis, Research, Git