



Viorel Porumbescu

MACOS/IOS DEVELOPER

Details

Sibiu, Romania

Sibiu

Romania

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viorelporumbescu@outlook.com

Links

OTHER

OTHER

LinkedIn

Skills

macOS Development

Swift & Objective-C

Architecture & CI/CD for Apple
Ecosystem

Cryptography & Security
Concepts

System-level Programming

Languages

Romanian

English

Profile

Hard-working programmer with a flair for creating elegant, efficient solutions using Swift and Objective-C.

I've developed on-demand applications for macOS and iOS, handling the full lifecycle—from design and implementation to App Store distribution. My focus is on native development using UIKit and AppKit, with a strong understanding of platform conventions, performance optimization, and user-centric design.

Employment History

macOS Developer & Team Lead, Heimdal Security, Bucharest, Romania

AUGUST 2021 – PRESENT

At Heimdal Security, I played a key role in developing the company's **macOS endpoint protection agent** — an application designed to safeguard users from both online and offline threats in enterprise environments. I was involved from the very beginning, helping **build the product from the ground up**, and later transitioned into a **technical leadership role** as the team expanded.

Key responsibilities & contributions:

- **Designed and implemented the macOS agent architecture**, ensuring performance, security, and maintainability
- Built **core components** including background services, privileged helpers, and secure inter-process communication via **XPC**
- Worked with **Network Extensions** (e.g. NEFilterDataProvider, NEAppProxyProvider) to monitor and filter traffic at system level
- Developed the **UI layer** using **AppKit** and custom components — fully aligned with UX designs, without relying on SwiftUI
- Used **modern Swift** alongside **Objective-C**, where necessary, to bridge legacy code or access low-level APIs
- Handled the **entire build and deployment pipeline**, including notarization, code signing, and packaging for non-App Store distribution
- Established and maintained **CI/CD pipelines** to streamline testing and release workflows
- Took on the role of **macOS development team lead**, mentoring developers, setting coding standards, and guiding architectural decisions

Technologies & Tools:

Swift, Objective-C, AppKit, Cocoa, Xcode, LaunchDaemons, LaunchAgents, SMJobBless, XPC, Network Extension Framework, System Extensions, SQLite, Sparkle, Keychain Services, GCD, URLSession, Git, pkgbuild, productbuild, codesign, notarytool, Instruments, Sentry, etc.

MacOS/iOS Developer UI/UX Designer, MingleBit, Romania

MAY 2014 – PRESENT

In my collaboration with **Minglebit**, I was responsible for developing custom macOS and iOS utility applications based on well-defined specifications. My work covered the **entire development lifecycle** — from UI/UX design and implementation to testing and App Store deployment.

Key contributions:

- Developed efficient, maintainable, and reusable code with a strong emphasis on **privacy and security**
- Built both **front-end interfaces** and **back-end logic** using native Apple frameworks
- Authored **technical documentation**, user manuals, and internal support guides

- Managed multiple projects concurrently and successfully met **tight deadlines**
- Applied key architectural patterns and principles: **MVC, delegation, protocols, observers, singletons**, etc.
- Worked with **version control systems** such as Git and SVN
- Maintained a strong focus on **pixel-perfect UI design** and alignment with design team expectations

Member of research laboratory Models of Nonlinear Analysis and Applications, Univesitatea din Craiova, Craiova

JANUARY 2014 – PRESENT

As a member of the research laboratory, I contributed to both technical and academic activities, with a focus on cryptographic research and infrastructure support.

Key responsibilities:

- Implemented **cryptographic algorithms** on macOS systems for research and teaching purposes
- Installed, configured, and maintained the internal **VoIP network** using **Asterisk** and **FreePBX**
- Provided **hardware and software support** for departmental and laboratory computers
- Designed visual materials (posters, roll-ups, banners) for departmental events and conferences
- Created and maintained project and event websites using **HTML/CSS** and occasionally **WordPress**
- Participated in numerous **academic conferences**, with a focus on **applied cryptography** and **information security**

iOS Developer, KeepCalling, Sibiu, Romania

MARCH 2019 – JULY 2021

As an iOS developer at KeepCalling, I am responsible for maintaining and evolving all of the company's iOS applications: **KeepCalling, CallIndia, PhoneClub, HableCuba, MobileRecharge, and TopUp** — serving over **500,000 monthly active users** in total.

Key responsibilities:

- Develop native iOS applications using **Swift** and **Objective-C**
- Maintain legacy Objective-C code and refactor it into **modern Swift syntax**
- Implement complex UIs based on specifications provided by the design team
- Integrate and compile the **pjSIP** communication library
- Monitor quality indicators proactively to detect and resolve issues early
- Add new features and improve existing functionality across multiple apps
- Manage multiple projects simultaneously in a dynamic environment
- Supervise and support the mobile apps team

Tools & Technologies:

Swift, Objective-C, Xcode, CocoaPods, Carthage, CocoaTouch, UIKit, Core Animation, Core Data, StoreKit, UserNotifications, Alamofire, CallKit, Core Audio, SQLite, and others

Additional Notes:

Working on in-house applications comes with both advantages and challenges. As a developer, I benefit from greater flexibility and the ability to structure my workflow efficiently. However, frequent and rapid business decisions can significantly impact development priorities and timelines.

Education

Phd in Mathematics and Computer Science, University of Craiova

JANUARY 2019 – JANUARY 2021

Focused on **nonlinear systems** over **nonsupersingular elliptic curves**, with applications in **elliptic curve cryptography** and **digital security**.

Key Topics:

Elliptic Curves · Cryptographic Analysis · ECC · Nonlinear Boundary Problems · Digital Security Research

Master's degree in Advanced Techniques for Information Processing (English), University of Craiova

JANUARY 2016 – JANUARY 2018

Gained expertise in **modern computation**, covering a wide range of advanced topics and optimization methods.

Core Subjects:

Distributed Computing · Cryptanalysis · Advanced Databases · Software Engineering · Computer Vision

Bachelor's degree in Facultatea de Stiinte, University of Craiova

JANUARY 2013 – JANUARY 2016

Laid the foundation in **software development**, with focus on both academic and applied work.

Highlights:

C/C++, Java, C#, Objective-C, Swift · iOS/macOS Ecosystem · OnTime (iClock) · Part-time @ Minglebit · Coding Contests

Achievements & Awards

Sesiunea Nationala de comunicari Studentesti, Craiova

MAY 2015

Awarded for presenting original research in cryptography and applied mathematics at a national-level academic event.

1st Place – Mobile Coding Contest

NOVEMBER 2017

Achieved 1st place by **solving all competition problems in the shortest time**, demonstrating speed, accuracy, and strong algorithmic skills under pressure.

4th Place – Advent of Code / DOLJ

DECEMBER 2018

Demonstrated strong problem-solving skills and consistency across 25 days of increasingly complex algorithmic challenges.

2nd Place – Advent of Code / DOLJ

Ranked 2nd in a regional leaderboard for the Advent of Code global programming challenge, solving a series of algorithmic puzzles under time pressure.