Petro Ladkin

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Highlights

Accomplished software engineer with extensive experience in developing mobile, desktop, and server applications, tech lead, and architect roles:

- 15 years in software development, primarily in C/C++/Objective-C for mobile platform
- Last 4 years focused on iOS, macOS, and Safari development using Swift
- Also over 8 years of development in JavaScript/TypeScript/CoffeeScript, Python, Java for desktop tools/applications and browser extensions
- Over 10 years of leading engineering teams and designing a complex software solution
- Over 9 months of development Augmented Reality using Unity, ARFoundation, EasyAR
- Fast in learning and applying new technologies, flexible in adopting ever-changing requirements
- Deep expertise in security apps, Bluetooth communication, and driver development
- Easily build communication with developers and able to direct teamwork to the goals within schedules
- Patent for "Short-distance Network Electronic Authentication", US 10,764,056

things I'm passionate about:

- finding the simplest design for the problem
- continuously learning and trying new technologies
- not religious about any technology – looking for the right tool and the last stack for a job

Experience

[2021/05]	**Remote**	**Software Development Engineer**

- Development product for iOS/Android with Unity: Kaup is Appendix describing the Viking village of Kaup in the Kaliningrad region. The Viking village Kaup is a reconstruction of an early medieval township based on the archaeology of Prussian and Scandinavian settlements and forts, which is built according to the type of a Danish military fortress of the IX-XI centuries. Used tech stack: *C#; Unity, Lean Framework, WebView Framework*

[2021/04] **CleverBooks**	**Remote**	**Software Development Engineer**

- Development AR product for iOS/Android with Unity: CleverBooks Blocks is an educational game that supports 3D shapes learning, 3D dimacional thinking. With the help of Augmented Reality, this educational game provides an overlay of geometric shapes on real world and helps to develop critical thinking, rational approach and learn 3D shapes. Used tech stack: *C#; Unity, ARFoundation, Lean Framework*

| **[2021/02-2021/03]** | **Remote** | **Software Development** |
| **CleverBooks** | | **Engineer** |

- Migrated product from Vuforia framework to EasyAR, prepared to localization, and added new rockets in CleverBooks Space: app engages students to explore the Solar System, Rocket Building and Outer Space in an interactive way through 3D visualization. Pair the app with CleverBooks Space Poster to let K1 to K-6 students assemble a rocket and lead their own space mission to Mercury, Earth, Venus, Mars, Jupiter, Saturn, Uranus, Neptune through Augmented Reality experience. Used tech stack: *C#; Unity, Vuforia, EasyAR, Lean Framework*

| **[2020/10-2021/01]** | **Ukraine, Chernivtsi** | **Software Engineer,** |
| **Self project** | | **Designer, SMM** |

- Designed and developed AR product for iOS/Android with Unity: RC Car in AR - touch the incredible AR world with us, control RC cars in your favorite places. Used tech stack: *C#; Unity, AR Foundation*

| **[2015/07-2020/09]** | **Ukraine, Chernivtsi** | **Director of Engineering** |
| **Auxoft LLC** | | **co-Founder** |

- Participated in the development of the main idea of the product, UX, architecture, planning, bootstrap build, and release system and was responsible for the architecture and protocol design of Web extension, desktop, and mobile applications
- Work with customers, fast working round, bug investigation, fix and deployment
- Designed and developed MVP of future KeyReel project with parts: iOS database application, macOS service application, and Chrome extension. Used tech stack: *ObjC, JavaScript; UIKit, Cocoa, CoreBluetooth API, Thrift, HTML, CSS*
- With the team under my leadership developed the main version of the product:
  - Developed bidirectional communication framework for Bluetooth using Thrift, and implemented reliable implementation for iOS, macOS, and Windows and managed implementation for Android
  - Designed and developed KeyReel iOS, macOS, Windows applications, Browser Extensions, macOS U2F kernel driver
  - Designed and controlled the development of KeyReel Android application
  - Used tech stack: *ObjC, C/C++, Swift, CoffeeScript, JavaScript, Kotlin; UIKit, Cocoa, UWP, Custom controls, Jade, SASS, CoreBluetooth API, CommonCrypto, Thrift, Firebase, Crashlytics, WebEx API, NativeMessaging*
- Also developed match tools:
  - Chrome extension to manual KeyReel testing
  - Tool for auto testing KeyReel form parser on saved forms
  - Tool for auto testing KeyReel extension and competitors extensions on real sites
  - Command-line auxoft-flow tool for optimizing work with Auxoft developing flow
  - Library pagecatch for saving current webpage state into one huge html file including all resources (e.g. iframes, styles, pictures, fonts)
  - Chrome extension: skeleton for showing structure of the HTML page
  - Used tech stack: TypeScript/JavaScript, CoffeeScript, Bash; HTML, Jade, CSS, SASS, Selenium, WebDriver

[2006/02-2015/06]	**Ukraine, Chernivtsi**	**Senior Software Engineer**
SecurStar GmbH		**System Architect, Team Lead**

- I joined to development team product SecurePhone CSD for Windows CE as a junior software developer and I was creating product features (C# .Net Compact Framework). After a time, I was promoted as a developer in this project.
- When world's GSM operators canceled support of CSD protocol, our team designed and developed a new product PhoneCrypt where audio data was transferring over custom's P2P protocol. My roles were:
    - Design and develop core library for P2P communication, Authorize, and Media servers
    - Design and develop Windows Mobile Client, BlackBerry Client, iOS Client
    - Used tech stack: *C/C++, ObjC, C#, Java; WTL, UIKit, Custom controls, Core Data, WinAPI, TAPI, MAPI(SMS), UserNotification, sockets, WaveI/O+Speex/AMR Codecs, multithreading, STL, BOOST, custom encryption for SQLite, PostgreSQL, Cryptography(custom crypto lib), JsonRPC, XML, JSON*
- After some team, I become Team Lead in the project with several juniors, middle and senior developers in a team. Our team continued design and development core products and created few new. Roles:
    - Design and control the development of Windows Desktop Client, SIP Getaway, Admin Panel for Servers, P2P protocol auto testing tool
    - Used tech stack: *C/C++, PHP, Python; WTL, Custom controls, WinAPI, sockets, WaveI/O+Speex/AMR Codecs, multithreading, STL, custom encryption for SQLite, Symfony, Cryptography(custom crypto lib), JsonRPC, XML, JSON*

[2012/09-2014/06]	**Ukraine, Chernivtsi**	**Software Engineer**
Iosoftware LTD	**Remote**	

- Refactored code structure and optimize speed in JukeMaster application (a handy music player, designed by musicians for musicians) for iOS. Used tech stack: C++/C, *ObjC; UIKit, Core Data, AudioQueue*
- Implemented a multiplayer with RackNET library into an existing project, implemented new UI design, optimized the game-engine to remove freezes, and migrated the Cococ2D-x version from 1.x to 2.x in BattleHorn game (a tactical castle defense game offering a thrilling story) for iOS. Used tech stack: C++/C, *ObjC; Cocos2D-x, RackNET*

[2008/02-2012/02]	**Ukraine, Chernivtsi**	**Software Engineer**
Freelance on oDesk	**Remote**	

- Designed and developed products for Windows Mobile: PhoneyCall (simulate incoming phone calls), HourlyChim (issuing the alarm every hour), EasySMS (reading and writing SMS with finger interface and support T9), ADOMessager (client for paging network). Used tech stack: *C#, C/C++; Forms, WTL, WinAPI, custom controls. NET CF, TAPI, MAPI, UserNotification, XML, SQLite, STL*

Computer skills

- AR: ARKit, Unity AR Foundation, Unity Vuforia, Unity EasyAR
- Languages: C, C++, ObjC, C#, Swift, Python, JavaScript/TypeScript, CoffeeScript, Java
- UI Frameworks: UIKit, Cocoa, UWP, (previously WTL, wxWidgets, Qt, Windows Forms, WinAPI, MFC)
- Operating Systems: Windows Desktop/Server, Ubuntu/CentOS, iOS/macOS (previously Android, Windows Mobile, Blackberry)
- Security: communication encryption, file encryption, communication handshake (previously voice/text/HDD/flash encryption, OpenSSL)
- Networking and Web: TCP/IP, UDP/IP, RPC (Thrift, JSON), HTTP/REST
- Databases: SQLite (previously PostgreSQL, MySQL)
- (Previously) Web: HTML/CSS/SASS/JavaScript/AJAX/jQuery/Jade

Education

- Engineer automation, Ivano-Frankivsk National University of Oil and Gas, Ukraine, 2004

Social links

- LinkedIn: linkedin.com/in/petroladkin
- GitHub: github.com/petroladkin
- Facebook: facebook.com/petro.ladkin
- HackerRank: hackerrank.com/petro_ladkin