

Vlad Alexa: Portfolio

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Over the course of my career i wrote around 34k lines of code for 19 iOS apps and around 46k lines of code for 18 macOS apps (90% of which was in Objective-C and 10% in Swift)

The near exhaustive list of the projects i worked on for each employer is as follows:

-  Under 1000 lines of code
-  Around 2000 lines of code
-  Around 4000 lines of code
-  Around 6000 lines of code
-  Around 8000 lines of code
-  Around 10000 lines of code or more

Unless (macOS) is specified the project is implied to be for iOS, to get an idea of the size each project has a graphic next to its name based on the number of lines of code i wrote for for it unless my contribution was just bug fixes and maintenance.

THE DISTANCE AGENCY

Calorie Tracking Product Title ■■■■

2 months, Swift, zero to deliverable, calorie tracking app for leading UK weight tracking organisation, additionally included daily collaboration with their backend team to test and shape the api.

Trains Crew Product Title

2 months, Swift, Parse, existing codebase, internal reporting app for a top five UK train operator to be used in-journey by crews.

Trains Faults Product Title ■■■■

2 months, Swift, Parse, zero to deliverable, internal reporting app for a top five UK train operator to be used in-journey by crews, additional duties included designing the database structure and overseeing a massive import from spreadsheet data.

Trading Product Title

2 months, Objective-C, existing codebase, did the finishing work before release.

Internal Libraries

1 month, Swift, fixing and updating libraries to swift 3, making them into cocoapods.

Accounts Product Title

2 weeks, Objective-C, existing codebase, major fixes and maintenance removing deprecations and modernising the codebase.

Educational Product Title

2 weeks, Swift, Parse, worked on the navigation, coordinated work for first stage of project, managed branches and merging.

FERA Product Title

2 weeks, Objective-C, extended the interface, fixes and stability enhancements.

NHS Product Title

1 week, Objective-C, small fixes and routine maintenance.

STROMA CERTIFICATION

Energy Assessment Product Title

3 months, Objective-C, Worked on the highly architectural/blueprint based iPad app, my work consisted of building interaction with custom graphics elements and overall bug-fixing.

MAGNOLIA LABS

San Francisco Airport Product Title

1 month, Objective-C, Optimised the performance and improved the search section of the flight tracker app for the San Francisco International Airport.

Historical Markers Product Title

1 month, Objective-C, code review, fixes and improvements to map based markers app.

MOBEE TECHNOLOGY

Magic Numpad (macOS)

6 months, Objective-C, Wrote the software for a product by a mac accessories company which effectively turns a Apple Magic Trackpad into a Numpad using a film with keys and interpreting each touch based on the location and the type of film used, significant effort was invested in having it be as reliable as possible in a extremely unreliable real life experience and resilience to future operating system updates.
<http://www.mobeetechnology.com/the-magic-numpad.html>

OWN SOFTWARE

TXTCrypt ■■■■■

A simple multi-platform encryption application available for any desktop operating systems with Java, Web browsers and with native macOS, iOS, Android and Windows apps, the focus was on cross platform compatibility and robustness of the algorithms. <http://vladalexa.com/apps/ios/txtcrypt/>

VInfo ■■■■■

A straight forward exercise of gathering as much data possible from an devices specifics of hardware and software and transmitting it over the network to another device, when iOS allowed for this it could also get a list of the processes running and show the console output of all the system log messages <http://vladalexa.com/apps/ios/vainfo/>

Vtrace ■■■■■

A visual representation of the route the communication packets take over the world map to reach a certain server, it tries to make the best guesses faced with uncertain network responses, it is a core networking body of work with the added involvement of a third party api for ip address geo-mapping. <http://vladalexa.com/apps/ios/vtrace/>

GPSNote ■■■■■

A map annotation exercise with iCloud storage and syncing, the focus was on a minimalistic user interface where the map is the main element. <http://vladalexa.com/apps/ios/gpsnote/>

SpeakTime ■■■■■

Essentially a text to speech implementation with focus on the UX for either a static time display or a non visual interaction with the app just to hear the time. <http://vladalexa.com/apps/ios/speaktime/>

MagicPrefs (macOS) ■■■■■

A free application for customising Apple's Magic Mouse interactions, drawn numerous praise and users and took almost 6 months of development to reach a stable state, the user interface is totally separate from the background process and they are both significant in size and the complexity involved, at the core reverse engineered streams

of multitouch events from the mouse driver are intercepted through Apple's private framework, additional work went into enabling the app to be further extended via a built-in plug-in system with a dozen or so available, in total development took over 12 months over 2 years. <http://magicprefs.com>

MagicTerminal ■■■■■■

At its core a networking application focused on pairing devices and communicating data between them with the mobile device (client) serving as command input and the desktop device (server) running the commands and sending the results back to its clients, a lot of effort was invested in seamless pairing and lag-free communication. <http://vladalexa.com/apps/ios/magicterminal/>

TXTCrypt (macOS) ■■■■■■

A macOS port of my iOS app of the same name. <http://vladalexa.com/apps/osx/txtcrypt/>

Feedboard (macOS) ■■■■■■

An exercise in custom interface presentations and display animations Feedboard presented a full-screen animated cycle of a certain news feed/stream that blended with the existing desktop contents. <http://vladalexa.com/apps/osx/feedboard/>

LaunchBoard (macOS) ■■■■■■

A custom launch/home screen for applications essentially like Apple's macOS Launchpad.app before it even existed, inspired by the iOS home screen. <http://vladalexa.com/apps/osx/launchboard/>

HeatSync (macOS) ■■■■■■

A thermal monitoring and control application for Macs, focus was on a minimalistic display of temperature with its corresponding fan speed and enabling them to be changed on compatible machines, challenges included supporting multiple hardware configurations and undocumented sensor data. <http://vladalexa.com/apps/osx/heatsync/>

TTScoreBoard (macOS) ■■■■■■

A digital table tennis scoreboard display <http://vladalexa.com/apps/osx/ttscoreboard/>

DiskFailure (macOS) ■■■■■■

A rotational hard disk monitoring app aimed at predicting disk failure, involved a lot of low-level investigation of disks and macOS logging. <http://vladalexa.com/apps/osx/diskfailure/>

Loadables (macOS) ■■■■■■

A developer targeted application trying to list every single type of service, agent or background scheduled process on macOS, challenges included determining a lot of undocumented core OS functionality. <http://vladalexa.com/apps/osx/loadables/>

NSMonitor (macOS) ■■■■■■

A developer targeted application trying to monitor everything that can be monitored event-wise on macOS, challenges included dealing with a massive stream of events and often undocumented details for them. <http://vladalexa.com/apps/osx/nsmonitor/>

Applications (macOS) ■■■■■■

A very basic app listing of all the applications found on a mac but with very in depth analysis of the binary and bundle of each app. <http://vladalexa.com/apps/osx/applications/>

Files (macOS) ■■■■■■

A iCloud storage usage and synchronisation exercise which was meant to enable a Dropbox style usage pattern for iCloud, not allowed by Apple into the store so was open sourced <http://vladalexa.com/apps/osx/files/>

Memory Magic (macOS) ■■■■■■

A niche low level manipulation of how the system manages RAM memory the application also keeps a history of and graphs RAM and Swap usage, significant effort was invested in the minimal swipe-able hover interface <http://vladalexa.com/apps/osx/memorymagic/>

App Magic (macOS) ■■■■■■

Effectively a data visualisation and gathering app App Magic records simple application usage data from a background process and saves to iCloud for the main application to display graphically, supports filtering and advanced analysis <http://vladalexa.com/apps/osx/appmagic/>

Music Library Magic (macOS) ■■■■■■

A data processing app that takes a massive xml file from iTunes and compares it against a directory listing then provides the results of that to the user in a actionable way <http://vladalexa.com/apps/osx/musiclibrarymagic/>

MyCP ■■■■■■

Effectively a data visualisation app MyCP involves a lot of graph building in realtime and obtaining the data to build them with from either Cpanel or phpSysInfo which are web server software packages, challenges included supporting multiple api versions concurrently and avoiding throttling of requests. <http://vladalexa.com/apps/ios/mycp/>

TestHelper ■■■■■■

A generic test tracking progress and result keeping app, the focus was correlating the time and the score in a way that aids realtime assessment of how well the test is going. <http://vladalexa.com/apps/ios/testhelper/>

AirSay ■■■■■■

Essentially a low level exercise in audio streaming with an added text to speech component, the focus was on enabling the streaming of live audio from the devices's microphone to a separate airplay device on the network <http://vladalexa.com/apps/ios/airsay/>

AppsBar (macOS) ■■■■■■

A intelligent application launcher inspired by the iOS7 app switcher (the bottom strip of app icons), it features prioritising by how often the applications are used, blending with the existing desktop and gesture based invocation using the mouse pointer <http://vladalexa.com/apps/osx/appsbar/>

Vtrace (macOS) ■■■■■■

A macOS port of my iOS app of the same name, it features a entirely new UX for the desktop. <http://vladalexa.com/apps/osx/vtrace/>

CSV Magic (macOS) ■■■■■■

A specialist data engineering application designed to correlate, filter and structure any generic CSV dataset for exporting. <http://vladalexa.com/apps/osx/csvmagic/>