Michael Rockhold

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WORK EXPERIENCE

Developer/Owner Rockhold Consulting January 2024 — Present

Seattle, WA

- Independent developer of MicroGIS, an iOS/macOS application for GIS professionals.
- I expect to have version 1 available in the App Store in early November. (See https://github.com/rockhold-consulting/MicroGIS)

Senior Software Engineer

September 2022 — August 2023

Sinclair Broadcasting Group (Video Service Engineering team)

Seattle, WA

Website

- Designed, developed and deployed middleware to support streaming video services' customer sign-up and subscription service
- Designed and developed a system that automates the connection of live station newsfeeds to Facebook Live and other social media streaming services
- Designed, developed, and put into service a cloud-based search engine for KOMO TV's archive of daily run-down sheets going back decades
- Coded in primarily in Java, JavaScript, and Terraform to build and deploy web APIs using Spring Boot and other frameworks Debugged my APIs across service boundaries
- Collaborated with teams across the company, consulting with developers on other teams to share code, establish interfaces, distribute labor
- Wrote clear, concise, and testable code Provided valuable unit and integration tests
- Contributed meaningful feedback in peer code reviews
- Mentored junior developers
- Interviewed developer candidates for recruitment to our team or to others.

Senior Software Engineer

September 2019 — September 2022

Seattle, WA

Sinclair Broadcasting Group (Innovation Lab)

Website

- Proposed new projects
- Presented plans, progress, and results on a regular basis to Steering Committee, the C-suite audience that commissioned and evaluated our work
- Authored development and test plans
- Wrote clear, concise, and testable code
- Coded in primarily in Go, GraphQL, and Python, some Javascript with React and React Native
- Developed unit and integration tests for new code
- Used cloud tools like ElasticSearch, AWS Lambda, AWS CloudFormation, AWS S3, AWS SNS, etc.
- Wrote Terraform scripts to deploy to AWS via GitHub and GitLab CI/CD systems
- Used AWS Lambda, DynamoDB, CloudFormation, ECS, API Gateway, S3, Simple Notification Service, Route 53 to build micro services
- Developed custom middleware to support web and React Native clients for a prototype of a new Sinclair news property

Senior Software Developer

July 2017 — April 2019

Hestan Smart Cooking, Inc.

Seattle, WA

Website

- Maintained and extended a BlueTooth-based "device pairing" module that maintained a stable connection between the app and the various cooking appliances in the customer's kitchen
- Developed a sophisticated UI for capturing the user's preferred level of sear for different cuts and thicknesses of meat
- Carried out an extensive refactoring of the cooking workflow to employ the MVVM pattern to the sequence of activities the user undertakes while cooking a recipe.
- Reviewed code in ObjC, Swift, Java for iOS and Android apps and web services deployed on AWS

- Developed manual and automated test processes
- Interviewed and assessed candidates for recruitment

Software Developer III

July 2012 — May 2017

Seattle, WA

Website

Nordstrom, Inc.

- Co-designed, co-developed the Find Your Store features
- Developed experimental features dedicated to capturing the customer's best fit for a range of styles.
- Designed, coded a map-based Store Search feature to help draw customers into the stores
- Helped spearhead the transition of the whole Customer Mobile Application team to Test-Driven Development and full Pair Programming
- Developed prototype apps to explore potential product ideas
- Diagnosed and corrected bugs
- Performed code review (Objective-C, Swift, Java)
- Developed manual and automated test processes
- Lead development of a new style of candidate interview using pair programming and TDD
- Helped lead a major refactoring of the app to address some problems with the separation of business logic from presentation
- Interviewed and assessed candidates for recruitment

Software Development Engineer

 $\mathrm{July}\ 2011 - \mathrm{June}\ 2012$

Ascentium, Inc.

Kirkland, WA

Website

• Ascentium (now called 'Smith') is a IT services and consulting company that employed me to develop iOS apps.

Developer/Owner

February 2009 — September 2013

Rockhold Company, LLC

Seattle, WA

- Owner of a one-person software development business doing private development of applications for the Apple iPhone, iPod Touch, and iPad, as well as providing software development consulting services to customers developing similar
- Apps in the iOS App Store (since removed from the iTunes App Store as customer interest did not justify the effort of continued maintenance):
 - TransitScope, an iOS app for visually tracking the progress of King County Metro Transit buses along their routes through the Seattle area
 - Aktuala Loko, an app for communicating the user's present geographic location to their friends via social networking
 - RegEx Live!, a tool for exploring how to construct regular expressions

Research SDE II

January 2007 — January 2009

Microsoft Corporation (.NET Micro Framework platform team)

Redmond, WA

Website

- participated in the design and development of a portable implementation of the Microsoft Common Language Runtime for extremely resource-constrained embedded systems, and Windows-hosted tools for developing, debugging, and deploying software to them;
- implemented support for multibyte characters for string data in the runtime
- developed a Visual Studio plugin to support targeting .Net Micro Framework devices and emulators from the Visual Studio IDE

SDE II April 1996 — January 2007 Seattle, WA

Microsoft Corporation (Windows CE OS & Mobile Engineering Services)

- Produced a number of internal test tools and libraries
- Ported "Magellan" NT code coverage tools to CE OS for comprehensive collection of coverage data over time
- Developed the practices for CE OS automated and manual test labs to use for collecting coverage data in automated and ad-hoc testing

- Technologies used:
 - ► Microsoft C/C++
 - ► MSBUILD
 - Visual Studio
 - ► GNU C/C++
 - ▶ Python

Developer Attachmate Corporation

October 1994 — April 1996

Bellevue, WA

Website

- Attachmate Corporation is a 1982-founded software company which focused on secure terminal emulation, legacy integration, and managed file transfer software.
- Developed FTP client for Extra!, an integrated mainframe connectivity tool for Mac OS (classic).
- Developed automated build system for another similar product
- Maintenance programming (C/C++) for several products
- Technologies used:
 - Object Pascal
 - ▶ C/C++
 - ▶ Mac OS System 7
 - Linux

 $\mathbf{QA}\ \mathbf{Lead} \\ 1991-1994$

Symantec Corporation (THINK Technologies)

Bedford, MA

THINK C

- Symantec Corporation was the corporate parent of THINK Technologies, maker of Lightspeed Pascal, THINK C, and other programming tools.
- Developed and carried out test plans THINK C++, THINK Pascal, and the THINK Class Library (TCL)
- lead a small team of 1 to 3 direct reports
- Maintained Think Class Library in C++ and Object Pascal.
- Adapted Apple's MacApp C++ application framework to use THINK C++ runtime and accept THINK C++ idiosyncrasies

 ${\bf MUMPS\ Developer} \\ {\bf 1988-1991}$

[InterSystems, Inc.](https://intersystems.com)

Cambridge, MA

Website

- InterSystems Corporation is a privately held vendor of software systems and technology for high-performance database management, rapid application development, integration, and healthcare information systems.
- Assisted customers in developing and debugging MUMPS programs, and in administration of MUMPS database systems
- Performed maintenance and feature work in the InterSystems MUMPS standard library.
- Technologies used:
 - ► C/C++, MUMPS
 - ▶ vi
 - UNIX
 - ▶ X Window System.

Developer 1987 — 1988

VERTEK, Inc.

Bellevue, WA

- VERTEK was the developer of OASYS, a tool used by occupational professionals to perform transferable skills analysis for people seeking to build a new career path.
- Fixed bugs in the OASYS product
- Developed internal tools
- Technologies used:
 - ► C/C++
 - ► MS-DOS
 - ▶ Unix

- ▶ SCO Xenix
- ► C-Tree
- ► RS-232 communications

EDUCATION

University of Washington, Allen School of Computer Science and Engineering

Seattle, Washington

January 2019

Master of Science, Computer Science

Montréal, Québec

McGill University

January 1986

Bachelor of Arts, Linguistics (Computer Science minor)

PROJECTS

, ManyMaps (github.com/rockhold-consulting/MicroGIS)

Nov 2023 — Present

- macOS and iOS application for displaying and editing imported geojson and KML files
- Developed in SwiftUI for macOS 13+ and iOS 16+
- Makes extensive use of Core Data and MapKit

, TransitScope (github.com/michaelrockhold/TransitScope)

2012

- iOS app for displaying current bus schedules and real-time bus location information for the King County Metro transit network.
- $\bullet\,$ Stopped working in 2016 when the UW ITS API was retired.

, Aktuala Loko (github.com/michaelrockhold/Aktuala-Loko)

2010

- An iOS app for communicating the user's present geographic location to their friends via social networking systems.
- Uses MapBox static maps API to create an image depicting the user's present location, suitable for pasting into Messages,
 Twitter, or Facebook.
- , RegEx Live! (github.com/michaelrockhold/regex-live)

2010

• An iOS app, a tool for exploring how to construct regular expressions and interactively seeing the results of applying the expressions to some user-supplied sample texts.

EXTRACURRICULAR ACTIVITIES

National Junior Classical League Volunteering

• Chaperone and invigilate at WA/BC regional conventions of the National Junior Classical League

SKILLS, AWARDS, ETC.

- Programming Languages: Swift, Python, Objective-C, Java, Bash, Typst
- Technologies: macOS, iOS, SwiftUI, UIKit, Core Data, Core Location, MapKit, REST APIs, GraphQL, Git, ffmpeg, AWS Lambda, DynamoDB, MQTT, AWS Simple Notification Service, GitLab CI/CD
- Strengths: Presentation skills, Written communication, Mentorship, Cross-team/cross-discipline collaboration, Software Design, Object-Oriented Design, Test-driven development (TDD)
- Interests: Foreign languages, Programming languages, urbanism, historical maps and cartograms
- National Merit Scholarship Finalist
- American Legion School Award (Foreign Languages)

LANGUAGES

- English (Native)
- Spanish (B1)
- French (B1)
- German (A2)