

WILLIAM KINGSLEY

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LANGUAGE SKILLS AND TOOLS

- **Languages/Frameworks:** Kotlin, Swift, SwiftUI, Python, Java, C#, SQL, C++, JavaScript
 - **OS/Tools:** Android Studio, xcode, JetBrains, Visual Studio, KMM, Wear OS, Azure DevOps, Jira, Git, Hypergate, Teams, Bash, Slack, Charles, Heroku, Azure, BitBucket, OneSignal, BugSnag, Postman, GitLab, Cypress, Figma, VirtualBox, WinSCP, LucidChart, Microsoft Office, Docker
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PROJECTS

Fidelity Investments

Fidelity Bloom (Android, Kotlin, Compose, Arch, Coil, Mockk, Retrofit, Accompanist, Clean, Artifactory)

- Fidelity Bloom is a youth investing app made to help improve the savings and spending habits of the next generation of investors. Fidelity Bloom teaches new investors through interactive challenges, in-app investment tips, and a variety of account benefits to demonstrate the importance of healthy financial habits.
 - Developed Home, Save, Spend, and QA Challenges features to provide user financial support
 - Implemented multi-module Clean architecture for creating reusable and maintainable modules
 - Created custom Jetpack Compose bar charts measuring and reporting user investment performance
 - Lead InRhythm development team and supported junior developer growth and learning
 - Unit tests created using Mockk and JUnit frameworks for ensuring code correctness
 - Coordinated development timeline with management to maintain deadlines and release dates

Northrop Grumman Corporation

Digital Badge (Android, Kotlin, Google Maps API, Compose, Retrofit, OkHttp, Hilt, Location Services, Hypergate)

- Digital Badge is a lone-worker mobile safety app built to help protect and monitor lone-workers in dangerous working environments. Digital Badge leverages the Google Maps API for location access management and features a check-in/check-out status monitoring system to ensure workers adhere to building safety guidelines.
 - Created status monitoring state-machine system for ensuring proper status and safety of workers
 - Implemented Google Maps API for location and building geo-fence management
 - Applied MVVM architecture and components for promoting app maintainability
 - Integrated OneSignal SDK for push notification status alerts of workers in dangerous environments
 - Digitized employee credentials for easy-of-access of buildings and structures

Pilot System (Android, Kotlin, Compose, CameraX, QR Scanner, Hilt, Retrofit, OkHttp, Hypergate)

- Pilot System removes the complications of maintaining pen-and-paper flight manifests and accelerates passenger onboarding processes for NG aircraft. Pilot System tracks passenger status, provides digital flight manifest management features, and greatly reduces the likelihood of reporting errors on flight manifests for aircraft.
 - Implemented OkHttp HTTP clients for easy consumption of .NET Core REST API
 - Designed and implemented application UI and passenger onboarding rule sets for efficient onboarding
 - Created a QR code analyzer using Jetpack CameraX library for passenger ticket scanning
 - Developed real-time passenger onboarding and new-arrival in-app management system
 - UI implemented in Jetpack Compose to improve state management and development time

Flight Reservation Request System (Android, Kotlin, Compose, ZXing, Room, Hilt, Retrofit, OkHttp, Hypergate)

- Flight Reservation Request System (FRRS) expedites passenger aircraft reservation requests for NG employees. FRRS provides employees the capability to quickly reserve seats on passenger aircraft and allows for updating of flight reservation info in a single friendly mobile interface.
 - Lead team development efforts and release timelines for deployment with management
 - Used View and Jetpack Compose UI compatibility to better separate logic and improve maintainability
 - Integrated the ZXing library for generating ticket QR codes to improve passenger flight onboarding
 - Implemented Hypergate access control to enable single sign-on to improve user experience
 - Communicated with multiple teams to align and satisfy app requirements and user expectations

PeopleFinder (Android, Kotlin, Active Directory, Room, Retrofit, OkHttp, Hypergate)

- Developer of the PeopleFinder Android native mobile app for Northrop Grumman. PeopleFinder provides fast enterprise-wide search and discovery of employee information. By improving search times PeopleFinder reduces the amount of time employees spend gathering employee information for operation and shipment tasks.
 - Interfaced with Active Directory API using Retrofit and Hypergate to retrieve employee info
 - Designed and implemented app UI using View toolkit best practices
 - Room persistence library integrated for preserving user favorites and recent searches
 - Created LRU image cache for search results allowing for lazy loading of profile images
 - BugSnag used for error reporting and app health monitoring in production

Possible@Work (Android, Kotlin, OAuth2, Caffeine, HTML, Hilt, Retrofit, OkHttp)

- Possible@Work is an Android native mobile app for accessing the latest Northrop Grumman company news. Possible@Work uses the OAuth2 access control schema and features news content caching, refreshing, and single sign-on to improve overall user experience.
 - Implemented OAuth2 access control using EncryptedSharedPreferences for token storage
 - Designed and implemented app UI and collapsing toolbar for convenient user navigation
 - Used the Caffeine library for news content caching reducing network loads
 - Hilt library implemented for dependency injection management to improve testability
 - HTML parser used to render news content for Android views allowing for markdown rendering

Timesheet (Android, Kotlin, Swagger, OkHttp, .NET Core, C#, Git)

- Associate developer of the Timesheet mobile app for Northrop Grumman. Timesheet is one of Northrop Grumman's first downloadable mobile apps to be used on employee personal devices. Timesheet streamlines the process of timekeeping and time management while also providing users with critical company alerts and info.
 - Assisted with integrating generated API client code using Swagger Editor
 - Implemented MVVM ViewModel, Repository, and Data Source components
 - Supported development of .NET Core REST APIs for data transfer and use by Timesheet
 - Provided support for junior developers and helped organize development efforts
 - Built algorithms for content sorting and list view displays for convenient user time entry

SiteMinder Login (JavaScript, JQuery, Git, Bootstrap, HTML, CSS)

- Developed and recreated SiteMinder login web pages used by external network Northrop Grumman users. Full recreation of the original login pages was accomplished to support mobile-first. Modernized web page UI and user flow for a better authentication experience while improving web page functionality.
 - Used jQuery and JavaScript to improve existing web page functionality
 - Assisting in design of modern mobile-first website UI and implementation
 - Used a combination of HTML, CSS, and Bootstrap for implementing mobile-first UI
 - Leveraged existing SiteMinder artifacts for managing authentication type and session state
 - Worked with service managers to coordinate enterprise production deployment

STRIKE Web Admin (.NET Core, C#, JQuery, Git, Azure DevOps, Bootstrap, HTML, CSS)

- Assistant developer for Northrop Grumman B-21 Raider STRIKE project web admin tool. The web administration tool is used for audit and document tracking in support of the B-21 Raider project for the United States Air Force. The tool features asynchronous HTTP requests for real-time updates throughout the tool.
 - Engineered asynchronous HTTP requests using jQuery AJAX for real-time updates
 - Improved overall tool performance and web page responsiveness leveraging asynchronous code
 - Created jQuery table state management and dynamic user document controls
 - Leveraged existing controller .NET infrastructure for asynchronous HTTP requests

Possible@Work Content Admin (.NET Core, C#, Razor, JQuery, Git, Bootstrap, HTML, CSS)

- Lead developer of the Possible@Work content administration tool. The administration tool provides a simple web UI for media communication managers to input, format, authorize, and distribute news content for the Possible@Work mobile app for Android and iOS.
 - Constructed editing tool and side-panel preview for in-app news content viewing before publication
 - Razor used for content rendering and jQuery AJAX requests used for asynchronous requests
 - Coordinated team development efforts and assisted junior developers on development tasks
 - Managed version control incidents and implemented Gitflow workflow to reduce versioning issues

Northrop Grumman Enterprise Services – Mobile Hackathon Winner

NG Notes (iOS, Swift, SwiftUI, UIKit, .NET Core, Git, Azure Web Services)

- Developer of the NG Notes iOS mobile app for Enterprise Service's first internal hackathon. NG Notes is a note taking application developed to be used by Northrop Grumman employees as a task management aid. The application features a basic authentication process and allows for employees to categorize notes by project for better management of material.
 - Used Figma to design app UI components and architected basic user flow experience
 - Developed .NET Core API for management of user projects, notes, and in-app authentication
 - Created Azure API app services and Azure SQL DB for hosting .NET Core API and data store
 - Constructed asynchronous and synchronous HTTP clients for interfacing with .NET Core API
 - SwiftUI, MVVM, and URLSession best-practices used for networking and view development

Aktiv Connection

Aktiv Mobile App (Kotlin, Android, Paging3, OkHttp, Room, Caffeine, ViewPager)

- Founder and developer of the Aktiv Connection social exercise mobile app. Aktiv offers a revolutionary new way of connecting like-minded people dedicated to exercise and fitness in a social and fun way. The Aktiv mobile app makes it easy to make new acquaintances while also engaging with others to help you reach your fitness goals.
 - Integrated Room for storing user preferences and calendar events to support offline-first interaction
 - Caffeine used to cache media content and Moshi for JSON decoding of API responses
 - Developed messaging, calendar, search, and media content management features
 - Paging3 library used for pagination for video content for continuous user engagement
 - Developed business plans and app development timeline for release

Aktiv API (C#, .NET Core, MongoDB, Git, Azure, JSON)

- Creator of the Aktiv Connection API. The Aktiv API hosted on Microsoft Azure is used to service the Aktiv Connection mobile app. The API features a robust set of routes and leverages the .NET Core MVC architecture. Information is encoded in JSON and Swagger documentation is used for route mocking and development.
 - Used Swagger/OpenAPI for painless documentation of .NET Core API routes
 - Constructed .NET Core REST APIs for delivering Aktiv mobile app content in JSON format
 - Encoded data in JSON and hosted Aktiv API on Azure for prototyping and testing efforts
 - Connected API service with Azure SQL DB for persistent user data storage
 - Administered Azure SQL DB and .NET API service for longevity and uptime

MilTech

Virtual Industry Day (Node.js, React, Express, Cypress, JavaScript, MySQL, Docker, Git, HTML, CSS)

- Assisted in founding and strategic development of the Virtual Industry Day platform for connecting government tech needs and solutions. Virtual Industry Day was implemented to make it easy for government agencies like the Department of Defense to find and vet potential technology solutions.
 - Formulated the desired functionality and vision of the platform from project inception
 - Lead in relational database design, implementation, and continued management
 - Developed and maintained Node.js microservices and CI pipelines improving developing times
 - Built JavaScript applications for responsive and user-friendly web pages
 - Lead testing of project using the Cypress framework to improve UI quality control

Personal Projects

Research Buddy (Android, Kotlin, Springer Nature API, CORE, Compose, Hilt, Room, Retrofit, OkHttp, Git)

- Created the Research Buddy app for assisting students with academic research. Research Buddy uses Retrofit for interfacing with the Springer Nature API and CORE while additionally utilizing Room for data persistence and the Hilt framework for dependency injection management.
 - Implemented Retrofit, Hilt, and Room for HTTP client, dependency injection, and data storage
 - Created research article search and bookmarking features improving user research access
 - Designed and created flexible Material UI for improving device compatibility
 - Leveraged modern Android architecture components and MVVM architecture best practices
 - Built research article citation tool for creating MLA, APA, and Chicago citations

williamkingsley.com (Jekyll, Liquid, HTML, CSS, Github Pages, Minimal)

- williamkingsley.com is a professional website for showcasing my skills, experience, and education as a software engineer. In addition, my professional website includes my preferred contract information, résumé, and recent professional news.
 - Constructed using Jekyll, Liquid, HTML, and CSS for simplicity
 - Hosted by GitHub Pages for quick and easy deployments
 - Built using the Minimal theme for display compatibility
 - Applied custom CSS to personalize Minimal theme

MasterCalc (Go, JavaScript, SQLite, Git, Heroku, HTML, CSS)

- MasterCalc is the all-in-one web-based financial calculator of the future. MasterCalc provides users a friendly customizable need-based interface for performing calculations and analyzing data.
 - Developing visually appealing web pages and front-end web services using HTML
 - Created server-side application layer for support of front-end and database services
 - Implemented and configured MySQL DBMS software for user data management
 - Analyzed and observed for correctness of function and equation outputs
 - Asynchronous HTTP requests implemented to improve page responsiveness using jQuery AJAX

WORK EXPERIENCE

Fidelity Investments (via InRhythm) Great Falls, MT	Senior Android Engineer	March 2022 – present
Northrop Grumman Corporation Helena, MT	Software Engineer	June 2020 – March 2022
Aktiv Connection Bozeman, MT	Software Engineer	March 2020 – April 2021
MilTech Bozeman, MT	Full Stack Developer	Feb 2018 – May 2020

EDUCATION

Master of Science in Computer Science, Computing Systems

Georgia Institute of Technology, Atlanta, GA

Expected graduation date: May 2024

Bachelor of Science in Computer Science, Professional Option

Montana State University, Bozeman, MT

Associate of Science, General Option

Great Falls College Montana State University, Great Falls, MT