BRENT D. MICHALSKI

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SPECIALIZED SOFTWARE ENGINEERING LEADERSHIP SKILL SET:

▪ 15+ Years of Software Development Expertise, Specializing in Creating Secure and Efficient Applications for Critical Operations, including the GEOINT App Store for the U.S. Intelligence Community ▪ 12+ Years of Expertise in iOS App Development with Strong Command of Objective-C, Swift, and SwiftUI ▪ Possess a Deep Understanding of UI/UX Interaction Paradigms, Animations, Gestures, Design Patterns, and iOS Quality Craftsmanship ▪ Extensive Experience with iOS Frameworks (including: SwiftUI, SwiftData, UIKit, Core Data) ▪ Skilled in Rapidly Building Minimum Viable Products without Over-engineering, Leveraging Full-Stack Expertise to Expose API Endpoints, Modify Backend Business Logic, Define Database Schemas, and Spin Up Servers ▪ Exceptional Product Sense and Storytelling Abilities that Translate User Needs into Clear, Technical Visions ▪ Proficiency in Concurrent Programming, Memory Management, I/O, App Lifecycle, Multithreading, and Networking ▪ Expertise in Leveraging Device Capabilities and Technologies like MapKit, ARKit and CoreML, with a Passion for Learning and Experimenting with New Technologies ▪ Solid Experience in Running A/B Experiments and Interpreting Data to Inform Product Insights ▪ Expertise with Agile Software Product Delivery and SCRUM Methodology ▪ Strong Experience Mentoring Junior Engineers as well as Triaging and Debugging Enterprise-Wide Production Issues

PROFESSIONAL EXPERIENCE:

EDWARD JONES – Sr. iOS Consultant (Contract via Daugherty Business Solutions)   2020 to 2024

- **Pioneered OpenAPI Integration**: First iOS Developer to implement OpenAPI for API calls, enabling automatic generation of networking code through the OpenAPI Swift Generator, setting the foundation for future automatic code generation for all networking components.
- **Led iOS Development Chapter**: Spearheaded the iOS Developers Chapter at Edward Jones, promoting cross-functional collaboration, and significantly enhancing app user experience and code standards.
- **Champion of Test Driven Development (TDD):** Advocated and implemented TDD practices within the iOS team, leading efforts to integrate TDD into SwiftUI development and guiding developers to adopt TDD methodologies, being the first to implement a PACT consumer-driven contract during a project spike to investigate implementation details.
- **Developed Authentication Middleware:** Created middleware using Apple's OpenAPI to automate token and cookie inclusion in all network calls, eliminating manual setup for new endpoints and streamlining network code generation.
- **Designed Multi-Date Picker:** Developed a reusable multi-date picker for Edward Jones, encapsulating complex business logic within a custom object to enhance functionality and maintainability.
- **Refactored Banking Network Manager**: Overhauled the Banking Network Manager code by implementing Swift Async/Await methodologies, creating a generic network call function that reduced 230+ lines of repetitive code.
- **Implemented AsyncImage for Dynamic Images**: Integrated the new AsyncImage object for dynamic image fetching, simplifying the process and providing a default placeholder image, improving image management within the app.
- **Integrated External Bank Accounts**: Seamlessly integrated the Edward Jones app with the Fastlink4/Yodlee API to support external bank accounts, managing web requests and responses through third-party SDK and API.
- **Resolved Critical App Issues**: Identified and fixed rare but critical app crashes and performance issues, enhancing the UX.
- **Enhanced Accessibility Features**: Implemented Voice Over technologies for banking views, significantly improving app usability for users with severe visual impairments.
- **Transitioned to SwiftUI**: Converted numerous UIKit and Storyboard views to SwiftUI, modernizing the app's interface and improving maintainability.
- **Expanded GitHub Wiki**: Enhanced the use of the GitHub wiki for the iOS team, creating a centralized resource for project documentation, examples, tips, settings, and meeting notes, facilitating better knowledge sharing and collaboration.
- **Facilitated Cross-Team Collaboration**: Successfully coordinated efforts between iOS, Web, Android, and API teams, ensuring seamless functionality and demonstrating exceptional cross-functional collaboration skills.

BOEING – Sr. Embedded Software Engineer   2019 to 2020

- **Designed Secure Deployment Platform**: Spearheaded the creation of a robust, secure deployment platform for critical military aircraft system software builds, ensuring top-tier security and reliability.
- **Achieved High SCAP Compliance**: Developed secure Linux builds that reached 94% SCAP compliance, significantly surpassing the Department of Defense's minimum requirements and setting a new standard for security excellence.

PAR GOVERNMENT – Sr. iOS Software Engineer   2017 to 2018
- **Sr. Software Engineer for iTAK App**: Played a key role as Senior Software Engineer on the iOS app iTAK, transforming government user requirements into functional features through proficient coding, testing, and deployment.
- **Adopted Advanced iOS Technologies**: Spearheaded the integration of new iOS technologies and frameworks, reducing app latency by 33% and greatly improving user experience.
- **Improved Team Productivity**: Championed Agile development to enhance team productivity by 21%.
- **Implemented In-App Chat & Video Streaming**: Designed, tested, and deployed an in-app chat system and a video tool capable of streaming live drone feeds directly to users.

MASTERCARD – Sr. Mobile Software Engineer   2017 to 2017
- **Automated Unit & UI Testing**: Designed and implemented automated unit and UI tests, enhancing code reliability and reducing manual testing time by over 40%, showcasing a strong commitment to quality and efficiency.
- **New iOS App Development**: Initiated development of a new, multi-purpose iOS app for partner banks, expanding the range of services and functionalities available to users.
- **Hackathon Winner:** Played a pivotal role in winning Mastercard's "Take Initiative 2017" hackathon, demonstrating exceptional coding and teamwork skills in a competitive environment.
- **Legacy Code Improvement**: Created automated tests for existing legacy code, ensuring its stability and reliability.
- **Bug Fixing:** Identified and resolved multiple bugs in released apps, improving their performance and user experience.
- **Code Modernization**: Converted existing Objective-C code to Swift where appropriate, enhancing future maintainability.

NJVC, LLC – Sr. Software Engineer   2010 to 2017
- **Spearheaded Development of the GEOINT App Store**: Led the creation of a pioneering platform that redefined secure digital ecosystems for the U.S. Intelligence Community, modeled after Apple's App Store and featuring advanced functionalities such as subscription management, app launch tracking, and a robust "app kill switch" for immediate access termination.
- **Catered to Multiple Agencies**: GEOINT App Store served the National Geospatial Intelligence Agency, DoD, first responders, and the Intelligence Community offering 130+ applications across various classification levels with many developed commercially through the Innovative GEOINT Application Provider Program (IGAPP), tailored to meet the unique and sensitive needs of its users.
- **Developed a REST-based Swift 3 API**: Required for all GEOINT App Store submissions, it featured subscription management, enhanced security, app launch tracking, and an innovative "kill switch".
- **Selected for High-Priority Role**: Chosen for a subcontracted position with Microsoft, performing an extensive iOS application code and security audit for a leading financial firm merger due to mastery of mobile app security within the iOS development realm.

MONSANTO (acquired by Bayer in 2018) – Sr. Developer   2004 to 2009
- **Standardized Perl Practices**: Led companywide adoption of Perl standards, enhancing coding efficiency and maintainability.
- **Enhanced Quality Control Tools**: Optimized internal quality control tools, improving data integrity and efficiency by 24%.
- **Engineered Critical Genetic Database**: Collaborated with end-users to analyze and prioritize software requirements, enabling the creation of a multi-terabyte database of critical genetic data for research and development.
- **Managed Genetic Database System**: Installed and troubleshot the genetic database system, ensuring reliability and performance.
- **Lead Engineer for MEGA Tool**: Served as the lead engineer for tool, providing scientists with access to critical genetic data.
- **Server Maintenance**: Fully maintained 20+ servers dedicated to the MEGA tool, ensuring continuous availability and performance.

EDUCATION & CREDENTIALS:
UNIVERSITY OF PHOENIX; MS in Adult Education & Distance Learning   2006
NATIONAL AMERICAN UNIVERSITY; BS in Computer Information Systems
CompTIA; Security+ ce   2021
CompTIA; Security+   2012
Top Secret/SCI Clearance (Lapsed but Can Reobtain)

LEADERSHIP & COMMUNITY INVOLVEMENT:
U.S. Air Force; Computer Operator (11 Years)
- Developed one of the first-ever web-based computer ordering systems, revolutionizing procurement processes with real-time updates and significantly enhancing customer satisfaction and operational efficiency.
- Designed and launched Ellsworth AFB's inaugural website, creating a foundational online presence that greatly improved communication and information dissemination for the base.

Brent D. Michalski (resume continued)

Multiple Published Articles on Medium.com:
- Solving SwiftData Preview Crashes (Jun. 2024)
- Xcode Integration with GitHub: A Step-by-Step Guide (May 2024)
- Lost in Privacy: Apple's Maze of Madness for Devs (May 2024)
- Failing Unit Tests: The Developer's Key to Confidence and Quality (Apr. 2024)
- Swift State for People with ADHD (Apr. 2024)

Publication on Perl Database Programming (Wiley, Nov. 2002)
Publication on Writing CGI Applications with Perl (Addison-Wesley Professional, Jan. 2001)
Active Volunteer Dog Fosterer
Former Youth Volunteer Sports Coach

TECHNICAL SKILLS & PROGRAMS:

Development: Languages & Web: AJAX, API Development, BASH, C, CSS, HTML, Java, JavaScript, JSON, MarkDown, Objective-C, Perl, PHP, Python, REST, REST API's, Ruby, Shell Scripting, Swift, SwiftUI, TypeScript

Development: Apple Technologies: Accessibility, AppleTV, App Store, App Store Deployment, ARKit, CloudKit, Cocoa Touch, Core Animation, Core Data, CoreData, Core Graphics, Core Image, Foundation, GCD, Grand Central Dispatch, HealthKit, HIG, Human Interface Guidelines, Internationalization, iOS, iPadOS, Localization, macOS, MapKit, OpenAPI, SceneKit, SwiftData, SwiftUI, UIKit, WatchKit, Xcode, XCTest, XCUITest

Development: Practices & Methodologies: Agile Methodologies, Agile Software Development, API Development, Application Programming Interface, Development lifecycle, Development processes, Full Stack, Full Stack Development, Scalability, Software Testing, TDD (Test Driven Development), Usability, user-centric design

Development: Tools & Technologies: ActiveX, Alamofire, Eclipse, Firebase, Git, Google Analytics, JIRA, Microsoft Visual Studio, ServiceNow, Xcode

Systems & Networking: Amazon Web Services, Amazon Web Services, AWS, AWS, Computer Networking, Computer Networking, Information Security Compliance Management, Information Security Compliance Management, iOS, iOS, Linux, Linux, macOS, macOS, Microsoft Azure, Microsoft Azure, Mobile Application Security, Mobile Application Security, Windows, Windows, Wireless Security, Wireless Security

Data Management: Data Integrity, Data Management, Data Security, Data Storage, DNA Database, Firebase, GraphGL, MongoDB, MS SQL Server, MySQL, NoSQL, Oracle, PostgreSQL, SQLite

Hardware & Embedded Systems: 3D Printing, Arduino, Avionics Software, IoT, Laser Cutting, Laser Engraving, Laser Etching, Lasers, Raspberry Pi, Real-Time Systems, Robotics

Other Technical Skills: A/B Testing, App Modernization, Build and Deploy, CI/CD, Clean Code, Clean Coding Standards, Code Review, Coding Standards, Continuous Deployment, Continuous Improvement Process, Continuous Integration, Continuous Integration/Continuous Deployment, Debugging, Documentation, Emerging Technologies, Git, Memory Management, Multilevel Security, Multiplatform, New Technologies, Pixel Perfect, R&D, Refactoring, Research and Development, REST, RESTful APIs, UI Testing, UI/UX, User Experience, User Interface