Kyle O'Connor

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Staff level Software Engineer with strong technical and leadership skills as well as 13 years of experience across the R&D, defense and biometrics industries.

Resume (PDF)   **LinkedIn**

SKILLS

PROGRAMMING LANGUAGES	Java, C/C++, JavaScript/TypeScript, SQL, C#, C++/CLI, Python
DEVOPS	Terraform, AWS, Docker, GitHub Actions, Jenkins
OS	Windows, Linux (Ubuntu, CentOS), Embedded Linux
IDE	VS Code, IntelliJ, Visual Studio
STATIC ANALYSIS	FindBugs, Snyk, Coverity, Infer
UNIT TESTING	JUnit, Mockito
BUILD TOOLS	Gradle, CMake, MSBuild, WiX Toolset
VERSION CONTROL	Git, Subversion, TFS

EXPERIENCE

Mighty

Senior Software Engineer   Jun 2022 - Nov 2022

Mighty was a startup company that created a web browser streamed from a powerful computer in the cloud, focused on improving speed and performance.

- Worked on the full stack from serverless functions in GCP to client and server Node.js applications in TypeScript and C++
- Responsible for porting the existing macOS client application to Windows which launched to alpha customers in November 2022
- Implemented hardware decoding and rendering with DirectX 11, audio with WASAPI and native UI with Win32 API
- Shipped native M1 (arm64) build of macOS client to massively improve performance on Apple Silicon devices
- Helped maintain CI/CD in GitHub Actions and implemented automated static code analysis using Infer
- Became familiar with Chromium and electron development
- Involved in interviewing candidates and helped to onboard and mentor new hires

Princeton Identity

Lead Software Engineer   Aug 2016 - Jun 2022

Princeton Identity is a startup biometric identity management company used by various markets such as government, physical access control, commercial real estate. Created as a spin-off from SRI International with investment from Samsung.

- Lead the software team and all software development efforts/decisions, including software/hardware integration
- Architected multi-tenant cloud application on AWS (and other services), focused on security and best practices (Terraform)
- Design and develop frontend and backend web applications for multimodal biometrics products (Spring Boot, React, PostgreSQL)
- Experience with embedded software and BSP development (Yocto, Linux kernel drivers, PIC firmware)
- Implement and maintain DevOps infrastructure on-prem and in the cloud, including automated deployment and monitoring (Sentry)
- Excellent configuration management practices - branching, merging, release candidates, feature flagging, etc.
- Became familiar with mobile development on Android and iOS

SRI International

Software Engineer III   Jul 2010 - Aug 2016

Member of System Software Design and Development group

- Maintained common and cross-platform software framework across all products written in C
- Designed and developed software for multiple products in the biometrics and geospatial domains such as multimodal biometrics on mobile (Android) and embedded platforms, real-time video processing and georegistration systems
- Algorithm implementation from MATLAB, focused on accuracy/performance/optimization (SIMD)
- Supported the infrastructure for continuous integration, static analysis, and unit testing

Lockheed Martin ATL

Software Developer   Apr 2009 - Sep 2009

Member of User-Centered Interfaces group focusing on Human Computer Interaction

- Lead the integration of two major internal software products
- Interfaced with spoken language understanding technology
- Handled multiple development tasks in Java and coordinated with a team of developers
- Implemented software utilities to automate manual testing tasks
- Designed dynamic and interactive interfaces for augmented reality efforts

Lockheed Martin MS2

Test Engineer   Apr 2008 - Sep 2008

Member of Engineering Test & Evaluation team for Ballistic Missile Defense signal processor

- Performed radar and signal processing tests at navy test facility

- Wrote documentation for test requirements and procedures
- Obtained full secret security clearance and dealt with classified information

PJM Interconnection

IT Support Analyst   Apr 2007 - Sep 2007

Member of Windows Infrastructure department

- Supported packaging and distribution of software/updates to company
- Aided department with general IT and Windows support
- Instrumental in training new employee on packaging processes

EDUCATION

Drexel University

Sep 2005 - Jun 2010
BS - Computer Engineering GPA: 3.62

PUBLICATIONS

"Method and System for Seamless Biometric System Self-Enrollment"
Patent (US20220253514A1)

"Face Biometric Recognition with Anti-Spoofing"
Patent (Provisional)

LANGUAGES

Brazilian Portuguese
Limited Working Proficiency

INTERESTS

Soccer