**Evan Y. Chu**

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### **Summary**

Computer software engineer with 25 years of experience in mobile, web, and desktop environments. Able to design and implement complex software to achieve constantly changing business objectives. Has excellent communication skills and the ability to quickly learn and apply new technology.

### **Technical Skills**

**Software Design**: Object oriented, design patterns.

**Languages**: TypeScript, Groovy, JavaScript, Java, HTML, C, C++.

**Android Programming**: Java Native Interface, Framework, Android SDK.

**Multi-platform Programming**: React Native for Android and iOS.

**Tools**: Jenkins, AWS S3, GitHub, Git, Bash Shell, Android Studio.

**Network Protocols**: Near Field Communication, Bluetooth (Classic, Low Energy), TCP/IP.

**Operating Systems**: Android, Linux, Microsoft Windows.

### **Experiences**

**Capital One Financial Corporation, Master Software Engineer**, 6/2019 - present.

DevOps for <https://myaccounts.capitalone.com>.

• Develop infrastructure software for DevOps practices that quickly and reliably build, test, and deliver Capital One's customer-service website, above.

• Write software in the Groovy language for the Jenkins automation server.

• Write software in the TypeScript language to automate and integrate systems such as AWS S3, GitHub, and Artifactory.

DevOps for iOS App.

• Developed infrastructure software for DevOps practices for Capital One's customer-service iOS app.

• Wrote automated testing software using Apple XCTest framework.

• Technology included Swift language, Ruby language for the Fastlane automation platform.

• Used Splunk Enterprise to create dashboards to query and visualize test results.

Training.

• Completed a 6-chapter online course, *Kotlin Bootcamp for Programmers*, from Udacity Inc.

• Completed a course for secure programming for Java language for Android.

**Perfect Sense, Senior Software Engineer,** 9/2016 - 6/2019.

Design and implement software for Android and iOS devices.

• Develop the PeopleTV app for Time, Inc. for [Android devices](https://play.google.com/store/apps/details?id=com.timeinc.people.peopleewnetwork&hl=en_US) and [Amazon Fire tablets](https://www.amazon.com/Time-Inc-PeopleTV-Watch-Celebrity/dp/B01KIP4T94/ref%3Dsr_1_1?keywords=people+tv&qid=1564859499&s=mobile-apps&sr=1-1). Publish app to stores.

• Develop the “Circa - Experience News” app for Circa, a digital news service. Publish the [Android app](https://play.google.com/store/apps/details?id=com.circa.app&hl=en_US) to Google Play store.

• Develop the “Get Outdoors” app for The Coleman Company, the outdoor expert. Built with React Native technology for both Android and iOS, the app is published in Google Play and [Apple App Store](https://apps.apple.com/us/app/coleman-get-outdoors/id1343892540).

• Develop the “Golf Advisor app” for Apple TV for the Golf Channel, a television network. App is published in [Apple App Store](https://apps.apple.com/us/app/the-golf-advisor/id1435606014).

• Develop the In-App Purchase feature of “GOLFPASS Video” app for iPhone for Golf Channel. App is published in [Apple App Store](https://apps.apple.com/us/app/golfpass-video/id1448493740). Develop the user interface for the Apple TV version.

**Broadcom Limited**, **Principal Software Engineer, Senior Software Engineer,** 1/2008 - 9/2016.

Design and implement Near Field Communication (NFC) software for Android. Key technologies include C, C++, Java, Android SDK, Framework, Git, Eclipse, and Ubuntu Linux.

• Implement the Java Native Interface code that enables Android to use Broadcom’s NFC protocol stack and NFC controller. Contribute code to Android 4 and 5. See my code in external/libnfc-nci/ and packages/apps/Nfc/nci/jni/. The code is running on the Nexus 4, 5, 6 phones; Nexus 7, 9, 10 tablets; and many devices from major manufacturers.

• Use Android SDK to design and implement apps to test Near Field Communication on Android.

• Debug and analyze a wide variety of NFC-related problems: software crashes, race conditions, and protocol violations.

Design and implement Bluetooth and FM radio communication software for Microsoft Windows Mobile and Windows Phone. Key technologies include C, C++, Windows Phone API, Coverity Static Analysis, and ClearCase.

• Design, implement, and maintain software for Bluetooth protocols, profiles, and applications. Tasks include debugging Bluetooth protocols, modifying user interfaces, analyzing crashes, and improving performance.

• Create application-layer API for Bluetooth and FM radio features. This API enables customers to implement their own applications.

• Analyze and resolve software crashes by studying memory dumps, map files, assembly listings, call stacks, static analysis, and source code. The result improves software reliability and customer satisfaction.

• Implement the Java Native Interface code that enables Bluetooth features in Java virtual machines. This code enables customers to earn conformance certifications for their Java virtual machines.

**Innovative Concepts, Inc**, **Software Engineer 4, 1/**2007 - 1/2008.

A senior-level software engineer who implemented a network gateway simulator, which generated about $900,000 in revenue within one year. Key technologies included LynxOS embedded operating system, Linux development environment, C++, Ada, and TCP/IP networking.

• As the sole software engineer, I implemented all the features, troubleshot the network, and debugged system-wide problems. Responded and resolved all the customer’s technical support requests.

• Wrote requirement, interface, and release documents.

• Integrated the simulator with the customer’s system.

**AOL, LLC**, 1/1997 - 2/2007.

Joined AOL as an Associate Software Engineer. Promoted three levels to Principal Software Engineer based on accomplishments in developing software for more than 30 million AOL customers during peak period. Created object-oriented designs for many types of consumer software. Implemented designs using C++ in Windows and Linux environments. Diagnosed and resolved TCP/IP networking problems using network protocol analyzers.

**Principal Software Engineer**, 2001 - 2007.

• Designed and implemented graphical user interface and infrastructure software for a computer protection product, which established AOL's marketing position in the computer protection area.

• Created a software-update feature for the networking component in AOL's flagship product. It increased customer satisfaction by seamlessly updating their old networking component. Used open standards (HTTP, XML, public key cryptography) to achieve simplicity, reliability, and scalability to tens of millions of customers.

• Utilized Linux as a software development tool to simulate various network environments for testing. Simulated IP subnets, firewall, and WINS server. Using Linux reduced cost to near zero dollar.

• Developed embedded Linux applications for custom hardware to establish AOL's presence in the home networking market. Used Red Hat Linux on desktop computer for the initial implementation. Used MontaVista Linux on custom hardware for final testing, integration, and debugging.

• Conducted experiments and produced a report to quantify the performance of hardware and embedded Linux applications. Used Iperf to test hardware’s and applications’ network performance. Used Nbench and Dhrystone to test hardware’s computational performance.

**Senior Software Engineer, Software Engineer, Associate Software Engineer**, 1997 - 2001.

• Diagnosed TCP/IP networking problems affecting AOL's flagship product. Resolved problems in IP routing, DNS, PPP, and proprietary IP tunnel. Elimination of the problems increased customer satisfaction and reduced costly customer service calls.

• Created an installer for the networking component of AOL's flagship product. Its objected-oriented design and C++ implementation allowed easy integration into four versions of the product. The installer’s functions were exposed via a customized component object model interface.

**BDM International**, **Assistant Staff Member,** 1994 - 1997.

**Systems Research and Applications Corp.**, **Associate Member of the Professional Staff,** 1994.

**National Institute of Standards and Technology**, **Computer Science Intern,** 1993.

### **Education**

**Master of Science in Computer Science**, Johns Hopkins University. 1998.

**Bachelor of Science in Systems Analysis and Engineering**, The George Washington University. 1994.