Jason Cheok Wan

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OBJECTIVE

A software development position that allows me to work on cool, smart, and elegant applications that embrace the internet and matter to people.

EDUCATION

University of California, Berkeley
B.S. in Electrical Engineering and Computer Science (GPA 3.56/4.00) May 2010

SUMMARY OF QUALIFICATIONS

- Skillful in problem-solving, investigation, and research. Able to take on complex problems independently or collaboratively.

- Quick learner and open-minded to new technologies. Motivated to tackle new challenges. Eager to grow and be inspired by innovative ideas and elegant approaches.

- Survived and thrived in multiple fast-paced startup environments with proven ownership to mission critical projects and features.

- Generalist with a wide spectrum of computer science and software engineering knowledge.

PROFESSIONAL EXPERIENCE

Lead Mobile Engineer – Nbition Development Limited, Hong Kong   Nov 2013 – Apr 2014

- First employee. Single-handedly built the Garffee iOS app from scratch for demonstrating a "Smart-Cafe" idea which earned initial acclaims and fundings from the Hong Kong government and investors. The app allows user to pre-order on the go and feeds location tracking data to the order scheduling backend to eliminate waiting in line and ensure a smooth and fresh pickup at store.

- Handled every aspect of building a production level iOS client against a RESTful web service backend and Facebook API integration. Owned the MVC design and wrote in quick iterations everything from UI, animations, networking, data model and persistence, to unit-testing, and documentation.

- Prototyped a feature for fingerprinting high-frequency sound waves which serves as a unique solution to the indoor positioning problem. It involves digital signal processing techniques such as fast Fourier transform.

- Displayed a heart for quality by taking ownership and initiatives to deliver a user experience driven product with many subtle details and animations addressed.

Senior Software Engineer – Divide (Enterproid Inc.), Hong Kong   Nov 2012 – Nov 2013

- Core developer of the Divide iOS client - a secure and isolated BYOD container for any business data residing on personal devices. Work encompasses a wide scope of the Cocoa stack from UI to runtime functions hooking. Also contributed to components such as the Exchange mail sync engine, mail parser, and VPN. Pushing the limits of iOS enterprise functionality and improved the overall product quality.

- Developed a core FIPS-compliant Public Key Infrastructure library shared between Android and iOS using C/C++ and OpenSSL. It forms the basis of the S/MIME mail feature which I also implemented on the iOS side.

- Led and managed a team of 4 developers on both Android and iOS for the Divide Files feature - a file manager for storing mail attachments and cloud-storage files securely and sharing them between the container and enterprise patched apps. Contributed to the overall design and the majority of coding done on iOS.

- Improved the security and stability of the enterprise patched app feature on iOS. Incorporated a secure and creative data sharing channel between the main container and patched apps by implementing a mini SSL like protocol over the pasteboard API.

- Bullet-proofed the jailbreak detection feature by adding a runtime code signing signature check for any loaded Mach-O dylib's.

Software Engineer – Silver Spring Networks, Redwood City, CA USA   Aug 2010 – Jun 2012

- Took major responsibilities in developing Nodesim - a network device simulation product for virtualizing smart grid devices in scale, during which I took initiatives in the design, implementation, quality control, maintenance, and knowledge transfer of the product.
- Practiced network programming in C/C++ on Linux platforms with a multi-process, request-driven approach, during which I gained experience in:
  - implementing dual-stack IPv4/IPv6 server/client applications.
  - virtualizing the network stack and protocol of smart grid devices in pure software by modifying the low-level C code from device firmware and linking them against high-level application code.
  - employing packet sniffing and spoofing using raw sockets and libpcap, making the simulated traffic transparent to other integrated back office software.
- Worked part-time in the middle tier and back end of a multi-tier Java EE web application which employs Spring, Tomcat, and Oracle. Incorporated a feature for automatic schema migration between version upgrades.
- Invented a UDP traffic forwarder in Python using raw sockets for multicasting packets as is to various destinations.

HIGHLIGHTS OF COURSEWORK AND PROJECTS	*Programming Languages and Compilers*

- Developed a dynamically typed interpreted language with extensions such as coroutine and list comprehension; all based on a lexer, Earley parser generator, and bytecode interpreter built from scratch.

Efficient Algorithms and Intractable Problems	*Operating Systems and System Programming*
Intoduction to Communication Networks	*Introduction to Artificial Intelligence*
Foundations of Computer Graphics	*Computer Architecture and Engineering*

SKILLS	*Development:* Objective-C/iOS, C/C++, Python, Java, Scheme, Bash, Linux, OpenSSL; some experience with J2EE, Spring, Oracle, JavaScript, and Ajax; OpenGL, PL/SQL, MIPS assembly, LATEX.

Tools: Vim, Emacs, Xcode, Eclipse, Git, Perforce, SVN, gdb, make, ssh, tcpdump, JIRA, Scrum, etc.

Languages: English, Cantonese, Mandarin.