

Bernie Perez

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I'm always interested in exciting new opportunities that will allow me to thrive and grow. I enjoy mobile, security, algorithms, scalability, front-end, and just building things. You can find out more about me here on my personal page (www.rungeek.com).

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Technical Skills

Like: research, java, secure, security, mobile, webapp, datamining, databases, android, android-sdk

Experience

Senior Web Platform Engineer – Oculus VR March 2014 - Current
java, javascript, node.js, php, gruntjs, git, github, api, platform

Software Development Engineer – Amazon in Orange County (Amazon Appstore) June 2011 - March 2014
android, java, html5, javascript, perl, sql, webapp, android-sdk, xml, message-queue, services, api

As a Software Developer Engineer for the Amazon's Appstore, I've worked on front-end, back-end, services, android clients, middle-ware, databases, and with multiple languages such as Java, Perl, Python, Ruby, Javascript, and multiple frameworks.

To enhance Amazon's retail website experience, I redesigned the "Your Apps & Devices" settings page, added support for In-App Purchases and Subscriptions, and created a backend service that updates customers about their subscription via email. Additionally, on my free time, I added a feature that allows customers the ability to permanently remove apps from your account.

I was part of a larger team that help convert the Appstore into a hybrid html app for the second generation Kindle Fire, Kindle Fire HD 7" & 9" and the public client for android based phones. I built a system to inject localized strings for the United Kingdom, Germany, France, Italy, Spain, Japan, and China which pushed the Appstore into an international level.

After converting the Appstore into a hybrid app, I was then placed into a smaller team that focused on performance. I found ways to make the APK smaller by MBs, and improve usability by decreasing startup time by a few seconds and removing the 300ms delay on taps. Next, I built a prototype Appstore that offloaded the page creation from client-side to server-side. Since my prototype has gone into production, page-load times have decreased, caching is better implemented, battery life has improved due to fewer network requests, metrics improved, A/B testing is available, and updatability is much more efficient.

I then rebuilt the In-App Purchasing front-end to support server-side rendering. With improved metrics, IAP dialogs are more light-weight and loads quicker with less battery usage. I also built the front end for Amazon's Mobile Associates API, leveraging Amazons already existing mobile browsing experience.

I am now focused on developer facing experiences.

I have given multiple "brown bag" talks within the office about offloading page rendering on mobile apps and git version control. I am also a mentor for Amazon interns.

Member of the Technical Staff (MTS) – The Aerospace Corporation - Advance Software Department 2006 - 2011
(ASD)

java, mom, esb, nio, distributed-computing, security, webapp, webservice, api, scaling

Working on numerous space programs, I manage and research critical and time sensitive data that often requires flexibility and creative consideration. In addition, there were many projects that demanded my knowledge and expertise:

- High-Speed Data Networks (Socket/MOM/ESB/Java NIO)
- Parallel and Distributed Computing
- Computer and Network Security Engineering (Data Encryption/PKI)
- Space and Ground Computer Systems
- Web Applications/Web Services
- Telemetry Data Processing and Display
- Requirements Management
- Software and System Acquisition
- Database Engineering and Knowledge Management

Associate Member of the Technical Staff (MTS) – The Aerospace Corporation - Energy Technology Department (ETD) *2001 - 2007*

c++, visual-basic, .net, webapp, gpib, rs232, gps, ntp

I wrote software that autonomously controls external hardware through the GPIB controller (IEEE488) and serial ports to simulate space environment. Tests were required to run for long periods of time, automatically correcting and sequencing through charges and discharges of the cells/batteries. (C++, Visual Basic, .NET, HTTP/PHP/MySQL (AMP), GPIB, RS232, Win/Linux, Isolated Network, NTP Protocol)

While working with my team in the Energy Technology Department, I became well-educated in security features on networking and data encryption. I helped to integrate multiple hardware configurations in order to accommodate the electrical engineers and projects. Most work was created and completed independently with minimal supervision.

Education

M.S. Computer Science – University of California, Los Angeles (UCLA)

2010 - 2011

Master Degree Specialization

General field of Networking: Specifically Security and Mobile Devices

MS Project: Using secure AdHoc communication between mobile devices to share GPS ephemeris data

Course Work

- Computer Network Fundamentals
 - Object-Oriented and Semantic Database Systems
 - Peer-to-Peer Networks with Mobile Applications
 - Principles of Data Mining
 - Web Applications
 - Pictorial and Multimedia Database Management
 - Algorithms and Complexity (Theory)
 - Advanced Topics in Computer Security
 - Special Course on Secure Design for Embedded Systems
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B.S. Computer Science – California State University, Long Beach

2002 - 2005

Course Work

- Designed and created a first person shooter game. (C++, DirectX 9.0c)
 - Designed a relational database for a recreation of a college library system. (Oracle9, UML)
 - Redesigned the Nikkei Student Union's webpage with a forum and sessions and improved updating functionality. (PHP, MySQL, Apache)
 - Completed the requirements and specifications for a mock up of a redesigned staples.com. (C++, Rose, COCOMO, DFD, Use Case Models, and Flowcharts)
 - Created a 20 process program in Linux to compute large functions within shared memory. (C++, Multithread with fork())
 - Coded multiple traversing, pattern matching, and sorting algorithms. (C++)
 - Applied computer security.
 - Wrote simulations to generate data for problem solving using Object Oriented Programming (OOP) style. (C++)
 - Created a pong game with animation and speed control. (ASM)
 - Created a Multi Cycle CPU (MCC) to search for prime numbers. (Verilog)
 - Computer Algorithms, Probability and Statistics, Numerical Analysis, Discrete Mathematics, Linear Algebra, Multi-dimensional Calculus.
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Projects & Interests

cookiebot.js – <https://gist.github.com/bernieperez/6893717>

javascript

Simple bot for CookieClicker: <http://orteil.dashnet.org/cookieclicker/> You'll beat all your friends with my bot :)

GitHub - Kaings-Lucky-Numbers – <https://github.com/bernieperez/Kaings-Lucky-Numbers>

September 2012

This is a Android App (WebView) / Web App that displays the odds of lottery numbers. You can plug in your own values for the range of Lotto Balls, the range of the Mega Lotto Ball, and the number of balls in play. We used this app for creating our own lottery system for giving out prizes to students in a Math Class in Los Angeles.

Touch.js a jQuery plugin for Android Web Views – <https://gist.github.com/3701833>
jquery, javascript, android, webview, android-webview

touch.js is a re-write of Zepto's touch.js but working as a jQuery plug-in (Zepto not required). I've refactored the code to only support tap and long tap, and remove the 300ms delay before firing click (tap) events.

The whole thing.

With a little help from jslint to make sure I didn't make any obvious mistakes.

Crossfit Calculator – <https://play.google.com/store/apps/details?id=com.rungeek.crossfitcalc>
android, android-webview

CrossFit Calculator is an easy to use weightlifting calculator that will calculate multiple percents of your inputted weight and your theoretical 1RM based on reps at a certain weight.

I built this app mainly to help me calculate my own lifting percentages for weightlifting. It was very useful so I published it for everyone to use.

Rocket Droid – <http://www.amazon.com/One-App-Month-Rocket-Droid/dp/B0072J1612>
android, java

Rocket Droid is a spin on the classic helicopter game. Tap on the screen to steer your Android, and avoid the ceiling or ground. See how far you can fly.

First android game, built the game, game loop, cave creation, collision detection, and physics. The goal was to build an android based game only on free weekend time in under a month.

Had a friend help with the crash screen and scoring.