ADAM TAYLOR   *Sr Software Engineer*

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PROFILE

Results-oriented Software Engineer with Master's degree and particular expertise in Full Stack Web/iOS/React Native development and Eclipse Tooling Integration . Over eighteen years' experience developing software and managing projects in challenging, fast-paced consulting and commercial environments. Demonstrated ability to acquire technical knowledge and skills rapidly. Innovative problem solver, able to see the business and technical sides of a problem. Proven leadership, negotiation, and problem resolution abilities. Exceptional communication skills, both oral and written.

My portfolio contains screenshots and screencasts of many of the following projects: https://www.excbad.io

TECHNICAL SKILLS

- Swift, Objective-C, iOS, CoreData, TestFlight, AppStore and Ad-Hoc Distribution Process
- Node.js, MySQL, Nginx, Apache
- React, ReactNative, Webpack, Falcor, GraphQL, AWS, HTML, CSS, XML, JavaScript, jQuery, SOAP, REST, JSON
- Java, Eclipse SDK, JUnit, C/C++
- Mac OS X, Linux, Windows
- Functional programming, Object oriented programming, Design Patterns, Software Engineering, Agile

PROFESSIONAL EXPERIENCE

Tinder	10/2019 - 10/2023

Tinder iOS app
Created and maintained Tinder's Trust & Safety suite of harm reduction tools
Technologies: Eclipse SDK, Java, JUnit, Struts, Salesforce APIs, Apex
- Created Are You Sure? which employs AI to detect harmful language in messages and provides real-time warnings to senders
- Refactored existing Photo Verification to support ID Verification
- Created VideoChat including a gpu based image processing pipeline which supports filters – including an integration with a client side tensorflow lite model to blur content that violated Tinder's terms of service
- Redesigned the reporting wizard to be dynamically drawn based on server responses
- Integrated Noonlight to discreetly and easily trigger emergency services
- Created Safety Center to keep members informed about Tinder's T&S features
- Integrated Garbo which offers low-cost background checks on match profiles
- Created the Election Center which allows users to register to vote, check their registration status, request mail-in ballots, and review their ballots before voting
- "Refactored all T&S features to use design tokens to support Dark Mode and any other theme

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Sole Proprietor, EXC_BAD_ACCESS, LLC   **03/2009 - 10/2019**

Citi Private Bank – InView   **08/2011 – 11/2018**
Sole creator and developer of the "InView Framework" code base upon which the InView iPhone/iPad app for Citi Private Bank Bankers and Clients was built until version 5.5.0. At various times also managed anywhere from 2 to 40 developers in multiple countries.
Technologies: iOS 5.0 – iOS 11.0, ObjC, Swift, CoreData
- OSGi Plug-in architecture starting in iOS 5 (nothing comparable provided by Apple until iOS 8) which allowed functionally separate development to be carried out by separate teams, business units, and even 3rd party companies
- Both Native and Hybrid (HTML/Javascript) development supported via Cordova integration
- GoodDynamics (now BlackberryDynamics) integration providing secure user (de)activation, provisioning, and disk encryption
- Facebook style hidden UITableView for app navigation
- CoreData local storage with RestKit Object Mapping to/from server database through JSON web services
- Native and Javascript APIs for all common functionality including analytics, database, email, entitlement, events,exception handling, file system, hardware, i18n, logging, inter process communication, media access and display, navigation, networking, preferences, and threading
- Complete build system for multiple versions of the app with different features (Testers need a different build than developers, e.g.)

TripTrakGo   **04/2017 – 07/2018**
Worked with the other 2 founders to determine all the technologies to be used by TripTrakGo -- a school field trip planning startup. Responsible for all installation, setup, development, administration and ongoing maintenance of all technologies.
Technologies: React, Material-UI, Node.js, Sails.js,Mocha, AWS, webpack, Globalize, MySQL, Nginx
- Node.js application running on Sails.js framework bundled with webpack
- React used for both client and server on the web, ReactNative used for mobile
- Netflix falcor used for REST services. Custom library built for Amenity (see below) used to run falcor over websockets
- Redis used to synchronize authentication across nodes, and to serve up cached data
- Stripe used for payments
- SuiteCRM used to store beta site signups and promotional marketing email campaigns, with Mailgun to send
- AWS for cloud services
  - App ran on EC2 instances deployed with CloudCoreo
  - Static assets stored in S3 and served with CloudFront
  - Dynamically sized images generated with thumbor, which were then cached and served by S3 and CloudFront
  - User data stored in MySQL database running inside RDS

Amenity   **05/2015 – 12/2016**
Functioned as the CTO -- working directly with the CEO to determine all the technologies to be used by Amenity.io, a luxury AirBnB like startup. Responsible for all installation, setup, development, administration and ongoing maintenance of all technologies.
Technologies: React, Node.js, Sails.js, AWS, webpack, Globalize, MySQL, Nginx
- Node.js application running on Sails.js framework bundled with webpack
- React used for both client and server on the web, ReactNative used for mobile
- Netflix falcor used for REST services. A custom library was built to run falcor over websockets
- Redis used to synchronize authentication across nodes, and to serve up cached profile and listing data
- Stripe used for payments
- AWS for cloud services
  - App ran on EC2 instances deployed with Elastic Beanstalk
  - Static assets stored in S3 and served with CloudFront
  - Dynamically sized images generated with thumbor, which were then cached and served by S3 and CloudFront
  - User data stored in MySQL database running inside RDS
  - Listing data stored in DynamoDB so that it could be easily searched by CloudSearch

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Sole Proprietor, EXC_BAD_ACCESS, LLC (cont…)

Bare Escentuals – Buxom Cosmetics   06/2012 – 12/2012
Worked with San Francisco design firm Brand46 on a "brand awareness" iPhone app to launch alongside Buxom Cosmetics' advertising campaign (as well as the infrastructure to support it).
Technologies: iOS 4.0+, iPhone 3GS+, AppStore Distribution, Web Services, Facebook Graph API, CakePHP, MySQL, Nginx
- Facebook style hidden UITableView for app navigation
- "Pull to Refresh" on main menu and activity feed
- CoreData local storage with RestKit Object Mapping to/from server database through JSON web services
- Sweepstakes and iPhone tabs which appear on the Buxom Facebook page
- CakePHP/MySQL website to allow admins the ability to manage the app, including:
  - changing the help, terms of service and privacy policy HTML which appears in the iPhone app
  - changing the sweepstakes images, dates, official rules, and tagline images which appear in the iPhone app
  - change the text which appears on Facebook wall posts generated by the iPhone app

Citi Private Bank – CitiNews   08/2011 – 06/2012
Developed the original code base and major developer until version 3.0 of the CitiNews iPhone/iPad app for Citi Private Bank Investors
Technologies: iOS 4.3+, iPhone 3GS+, Core Data, AppStore Distribution, HTML5, CSS3, RSS, Twitter API
- HTML5 content area with fluid orientation-aware layout, scaling fonts, retina images, and offline support
- Hyperlink interception to keep users within the app and ability to execute custom actions
  - Displays an alert whenever the user attempts to view content not owned by Citi (e.g. a Twitter post or Facebook page)
  - Can force the interface to a particular orientation if the requested page is not intended to be displayed in all orientations
  - Can show transitions on clicks, play YouTube videos within our YouTube view, PDFs within our PDF viewer, etc.
- RSS channels which appear on the main page of the app controlled by a web service on the server
- CoreData local storage of RSS items for offline support
- Ability to save viewed RSS items so that they are not removed when local cache is cleared
- "Pull to Refresh" individual RSS channels (iPhone only)
- Ability to export PDFs and share RSS items via email and Twitter
- Tiling PDF viewer with thumbnail image page scroller
  - PDFs can also be supplemented with a custom XML file which specifies areas to overlay additional views to display videos, charts, web pages, etc. (while iPhone is supported, these features are currently only viewable in the 2011 Annual Report on the iPad version of the app)

LeadCapture   01/2011 – 10/2011
Worked with the CEO and sales and marketing teams of Boxman Studios to create a commercial version of the iOS application I developed for them. Additionally created a website where users could use a drag and drop interface to design their form and specify where the data should be stored. Users could then download the form to any number of mobile devices for use.
Technologies: iOS SDK, Web Services, CakePHP, MySQL, Nginx

Boxman Studios   09/2010 – 12/2010
Sole Developer for a data capture application available for the iPad and iPhone
Technologies: iOS SDK, Web Services, Ad-Hoc Distribution
- Used to collect potential clients' contact information at trade shows and events
- Contact info saved in a local database (SQLite), then uploaded to a remote HighRise (CRM) installation
- Offline support – App monitors changes to internet connectivity, uploads contacts to remote server when possible, verifies success, and finally deletes the contact from the local database
- Upon successful upload to HighRise an email is sent to potential client thanking them for their interest in Boxman Studios
- A spin-off app was created for Kelly Clark Products and LiftMaster
  - Included a survey with dynamic questions – questions presented to client would change depending upon their answers
  - Contact information sent to Salesforce instead of HighRise

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Sole Proprietor, EXC_BAD_ACCESS, LLC (cont…)

IBM – X10 Developer Tools   **06/2010 – 08/2011**
Worked with a small team of developers to expand the Eclipse tooling for the X10 compiler, as well as contributions to IMP project
Technologies: Eclipse SDK, Java, X10, JUnit

- Removed dependencies on JDT, replacing all elements with X10 specific or language agnostic counterparts
  - Generic classpath container extension point (IMP) – allows languages to group paths to libraries, source files, etc.
  - Generic classpath resolution (IMP) – dynamically created settings pages, wizards, and build errors
  - Generic variable resolution (IMP) – allows users to specify variables which represent environment settings, paths, etc.
  - Generic project explorer (IMP) -- support for multiple languages per project, extensions for creation wizards, and filters
  - Implementations of all of the above for X10
- Type Hierarchy – JDT port of tree showing super-type and sub-type hierarchies, including all JDT features
- Quick fixes
  - Added generic mechanism (IMP) for storing error codes with annotations and problem markers
  - Added extension points (IMP) allowing users (or languages) to map an error code to code to fix that error
  - Implementations of the above for X10 including many quick fixes such as *Add Unimplemented Methods*, etc.
- Modification of JavaDoc parser for X10 source code – including generation of API web pages, and editor integration (Hover Help)
- Test application which took a language grammar as input, and would generate source code files which exercised the language in various ways. The generated files could then be used for automated testing (JUnit).

Cisco Systems – Kubrick IDE   **09/2009 – 06/2010**
Worked with the lead developer of the Kubrick Dojo Library to port it to Eclipse
Technologies Eclipse SDK, Java, Dojo, JSP, HTML, JavaScript, JSON

- Project wizard to create a completely functional and user configurable Dojo web application which is 100% compliant with Cisco's UI standards and practices
- Integrated with Uxebu's Dojo Document Parser to create a build system which can automatically generate JSON objects describing Dojo classes directly from Dojo source code and packages them with the IDE for each release
- Extension point which allows plug-ins to add Dojo code completions to standard HTML, JSP, and JavaScript editors
- Created plug-ins against the above extension point and JSON objects to add Dojo, and Kubrick Dojo completions to the IDE
- Build system which scans the pre-existing Kubrick Dojo sample code base to package the appropriate sample files and generate the plugin.xml snippets to ship with the IDE for each release
- Integration with the Snippets View which displays a custom wizard on snippet drop and parses the appropriate pre-existing Kubrick Dojo sample file packaged as described above to dynamically generate the appropriate UI.

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Sole Proprietor, EXC_BAD_ACCESS, LLC (cont…)

AllsFair   **03/2009 - 09/2009**

Sole developer of the original iPhone 3.0 application for allsfair.com. The web site is down, as the startup never took off. Screenshots and screencasts of the app can be viewed in my portfolio.

Technologies: iOS SDK, ObjC, Web Services

- Multi-threaded design to improve user responsiveness
- SOA layer which handles all server interaction: turning the application layer objects into server requests and turning the xml server responses back into appropriate application layer objects
- Hard disk and memory cache for both images and application objects to reduce server load and increase responsiveness
- Online/Offline mode allowing the user to interact with the application when no data or internet service available; offline changes syncing with server at the next opportunity
- Created a number of reusable component libraries which provide commonly needed iPhone funtionality:
    - Multidelete – mimics the delete behavior found in the Mail application which ships with the iPhone.
    - Photos -- mimics the photo viewing capabilities that are present in the Photos application which ships with the iPhone.
    - Conversations -- provides a method for displaying email messages and chat messages as a thread.
    - FacebookTabs -- mimics the tab behavior found in the Facebook iPhone application.
    - FacebookFilter -- is a control which mimics the filter behavior found in the Facebook iPhone application.
    - Gallery -- mimics the "cover flow" behavior found in the iPod application which ships with the iPhone.
    - MultiCheckPicker -- is a UIPicker control which allows you to make multiple selections.
    - SafariPickers -- is a control which mimics the form editing behavior found in the Safari application which ships with the iPhone.

Salesforce.com   **06/2008 - 03/2009**

Force.com IDE

Worked with a small team of developers to build out the functionality of the Force.com Eclipse plug-ins.

Technologies: Eclipse SDK, Java, JUnit, Struts, Salesforce APIs, Apex

- Improved the functionality of the Apex Language Editor -- making it similar in user-experience to that of the Java Editor, including:
    - Reconciler – a process would run ½ second after a user stopped typing and would sync the UI and model, updating all visual elements associated with the editor, including the Outline View, problem annotations, and abstract syntax tree.
    - Content assist – list of available classes, objects, methods, and variables filtered by code scope and cursor position.
    - Syntax error underlining – full integration of JFace problem annotations, including code underlining and Problems View markers
    - Auto-closing and cursor positioning for comments and brackets – when an opening quote, bracket, etc. was typed the closing character was automatically added, and the cursor was placed between the two.
    - Bracket matching – when placing the cursor beside an opening/closing parenthesis or bracket, the matching closing/opening character was highlighted, allowing the developer to quickly determine scope regardless of formatting.
- Built upon the SSE extension points to add validation and content assist to the Visual Force editor
- Created a specialized Form Editor for editing a project specific configuration file which was used to specify which files should be available in the local project and which should remain on the server.

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BEA Systems, Inc.	**11/2006 - 06/2008**

AquaLogic Service Bus IDE 1.1
Having successfully released version 1.0 of the product, worked with other teams to build on the previous release.
Technologies: Eclipse SDK, Java, GEF, WebLogic, AquaLogic Service Bus
- Turned GEF canvas from previous release into a generic platform upon which other BEA GEF products could be built; including standard nodes, context menus, actions, and mechanisms for loading nodes, images, context menus, and palette items from extension points.
- Worked with another team of developers to successfully convert their GEF product to the platform above.
- Integrated our editors with the Eclipse Debugger, allowing users to set breakpoints and step through their services.
- Provided extension point allowing customers to integrate new FormEditor pages into our editors which would override the dynamic custom transport page from the previous release; allowing customers to create a custom Eclipse UI for their transport.
- Provided a number of new resource editors, and fixed all known outstanding bugs from previous release.

AquaLogic Service Bus IDE 1.0
Worked with a small team of developers to port the web-based ALSB design environment to Eclipse plug-ins.
Technologies: Eclipse SDK, Java, GEF, WebLogic, AquaLogic Service Bus
- Seamlessly integrated applicable BEA solutions into the ALSB IDE in order to facilitate BEA's Workspace 360 vision
- Created an Eclipse wizard and FormEditor for each runtime resource, including a special wizard/editor for customer defined resources.
- Converted multi-screen JSP message flow into a single screen GEF canvas with palette DnD, context menu, and Eclipse tabbed PropertiesView and OutlineView integration.
- Provided extension point allowing customers to define new message flow nodes, images, and properties.
- Provided extension point allowing customers to define new custom transport protocols to be used with our services.
- Provided a default FormEditor page for their custom transport which was drawn dynamically based upon a published API.

Guardian
Worked with a small team of developers during the final stages of Guardian's pre-release, fixing bugs and adding new features.
Technologies: Eclipse SDK, Java, BIRT, Web Services, WebLogic
- Integrated BIRT and provided extension points allowing customers to define their own custom reports and themes as well as export their reports to PDF and HTML files
- Merged multiple editors and removed extraneous items from the Domain Explorer view, allowing the user to get information more quickly and in a less cluttered manner
- Added *Link with Editor* feature to Domain, Signature, and Bundle Explorer views

Agile Communications, Inc.	**05/2004 - 11/2006**

Boeing (JTRS WNW)

Worked with a small team of System Engineers and Developers on a $3 million contract to update Boeing's existing radio testing and analysis methodologies in order to pass government field test certification. Gave multiple presentations and software demonstrations on the existing capabilities of Agile's software products. Demonstrated to Boeing in follow up meetings how Agile's software could be extended to test and analyze the WNW radio in a manner that COTS network analysis tools couldn't. Developed the following extensions to Agile's software (My efforts on each software package in italics detailed in later sections):
- C++ plug-in extensions to *Pcap Parsers* to support parsing of CORBA GIOP packets and WNW protocols
- J2EE web service and enterprise bean extensions to *Analysis Services* to support WNW specific analysis
- Eclipse RCP plug-in extensions to the *Analysis UI*

Northrop Grumman (JCR)

Evaluated the state of existing and planned government radio communications networks for a way to integrate a dynamic addressing scheme into the Tactical Internet (TI), including:
- Various dynamic addressing algorithms and software implementations – with regard to efficiency and bandwidth utilization
- Specific hardware / software changes required to EPLRS and INC radios for each algorithm / implementation above
- Proposed a solution and a phased plan for implementation – with regard to customer budget and schedule
- Worked closely with NG System Engineers to design a platform to disseminate situational awareness information on the TI*, including traffic balancing algorithms, bandwidth utilization algorithms and all necessary communications protocols.

Analysis Services (IR&D)

J2EE Enterprise Application running on JBoss used in combination with a packet sniffing library (libpcap) to supply post test and real-time network analysis. Each type of analysis given a SOAP Web Service front end which accepts instructions via XML attachments and return results in a format specified by the instructions. Said Web Services reside on top of a complex EJB3 framework utilizing MBeans, Session Beans, dom4j, JAF, and JFreeChart.

Analysis UI (IR&D)

Eclipse multi-platform RCP application which provides a convenient GUI for creating the XML attachments needed by Analysis Services, calling the services, and displaying the results. Built in views for all display formats supported by Analysis Services, allowing for simultaneous display of multiple static and dynamic graphs created in real-time.

GPS Network Time and NMEA Parsers (IR&D)

Algorithm to keep the system clock of all computers in a mobile network synchronized to within 10 microseconds using various data from an attached GPS unit; including the number of satellites visible, the quality of signal, and figure of merit. This data is gathered from the GPS unit by a custom C kernel device driver and parsed by a Qt C++ daemon consisting of a C++ plug-in for each NMEA sentence output by the GPS unit.

Pcap Parsers (IR&D)

Uses a pattern matching algorithm to parse the raw packets collected with a packet sniffing library (libpcap) into its component layers and store them into a database for the purposes of network analysis. Each parser is implemented as a Qt C++ plug-in and includes features such as checksum verification and packet reassembly when applicable.

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Quixtar	**05/2003 - 08/2003**

Quixtar Website
Developer
Participated in design, development, quality assurance, and production phases of the software lifecycle to complete web pages in a large members-only website (www.quixtar.com).
- Developed an ASP search engine allowing employees to perform data mining on customer records
- Developed an interface which provided developers a standard way to authenticate a user which delegated to multiple underlying authentication mechanisms, including session information, cookies, and SSL certificates
- Developed database stored procedures, and views within MS SQL Server 2000 for use in ASP pages
- Modified pages concurrently with other developers utilizing Microsoft SourceSafe as a versioning control system

Cisco Systems	**01/2001 - 8/2002**

Online Hardware Inventory
Lead Developer
Designed and implemented an inventory system to help lab administrators track hardware location and utilization
- Transaction-based inventory utilizing custom Oracle database
- Perl CGI front end to inventory, including the abilities to add, remove, and update items
- Custom HTML maps allowed users to locate the rack that equipment was being used in, or list all the equipment in use by a given rack

Optical Switch Prototype Certification
Lab Technician
Performed extensive lab testing to verify that two prototypes met all Cisco partner quality requirements necessary for partner certification, including, but not limited to:
- Signal to Noise Ratio
- Bit Error Rate / Symbol Error Rate
- Optical Power Limits
- Dispersion, Scattering, and Attenuation Limits

Optical Switch Prototype Demo
Technical Liaison
Worked closely with both Marketing and Engineering departments to create a customer demo which showcased two prototype's features. After the demo was designed, I attended both the Network + Interop conference in Las Vegas and the Supercomm conference in San Diego where I helped setup the demo, and acted as technical support.

EDUCATION

University of Southern California – Los Angeles, CA	**08/2003 - 12/2005**
Master's of Science, Computer Engineering – Specialization: Computer Systems Architecture	
University of Southern California – Los Angeles, CA	**08/1999 - 12/2003**
Bachelor's of Science, Computer Engineering and Computer Science	