

# CAYZAC JULIEN

## Senior Software Engineer

34-year old, married with one child. Spousal visa.



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### Skills

Platforms	Machine Languages	API	IDE	Human Languages
Web	Python, Javascript, AS3	jQuery, Flex	Vim Eclipse	French ★★★★★ native
Symbian	C C++	Java OpenAL OpenGL POSIX boost		English ★★★★★ business level
Linux			Objective C	XCode
Android	C#	.NET	Visual Studio	
iPhone				
Windows Mobile	Bash	coreutils	Vim	
Scripting				

### Work Experience

Aug 2010 → now	Tonchidot Corporation	Mobile Augmented Reality	Tokyo, Japan
<b>Software Engineer</b>			
Server-side development in Python on the Google App Engine and in Java with the Play! framework.	Ported the Android version of Google's O3D 3D engine to iOS, and implemented new features (3D objects picking/selection, instancing).		
Optimized OpenCV for mobile (single precision floats, removed lots of loops & useless memory allocations, optimized cache usage, ...), then developed feature detection & tracking functions not using OpenCV.	Wrote an XML-based 3D animation system for our Sekai Camera AR app.		
	Ported and optimized the PTAM base code on iOS.		
Sep 2008 → Aug 2010	Consulting		Yokohama, Japan
<b>Freelance consultant</b>			
Mobile applications development.	Writing monthly digests for foreign companies about Japan's technologies, products, services and trends, on subjects such as mobility, fixed-mobile convergence, connected TV, social networks, augmented reality or location-based services.		Organizing meetings between foreign and local companies.
Nov 2008 → Mar 2009	Works Zebra	Computer Graphics	Tokyo, Japan
<b>Production Unit Manager – Senior Software Engineer</b>			
Project manager within a small team of developers working on flash sites and mobile applications.	Development of promotional mobile applications in C#, C++ and Objective C for Windows Mobile handsets and the iPhone.		
Feb 2006 → Nov 2008	Mappy	Location Based Services	Paris, France
<b>Jan 2008 → Nov 2008: Senior Software Engineer – Innovation Researcher</b>			
Part of the 5% technical staff involved in evaluating new technologies and writing prototypes.	Created a service to geo-locate people using their phone's cell id and the surrounding WiFi signals, with client applications for Symbian, Android & Windows Mobile.	Converted building footprints from TeleAtlas to Collada 3D objects, using Blender and custom Python scripts for tessellation.	
Worked on a Mappy-Car concept, in the spirit of the Google Car, but using MPEG capable cameras so we could process most information in realtime by staying in the compressed domain.	Created an Adobe Flex/AIR based framework for easily experimenting with new visualizations for itineraries.	Implemented several ASP.NET web services in C#, to serve the above applications with elevation data, geolocation, buildings, etc.	

Feb 2006 → Jan 2008: Senior Software Engineer – Technical Expert for the mobile car navigation project		
Pushed moving from the existing unstable multi-threaded architecture to a better debuggable mono-threaded, non-blocking one.	Wrote a crash reporting tool for ARM processors, with call stack dumping, in the spirit of Mozilla's Talkback which used ARM assembly.	Wrote the nightly automated build scripts in Python and integrated them with JIRA so that bugs would automatically be reported when compilation errors occurred.
Invented a GPS position filtering algorithm, now used in the open-source Navit navigation software.	Gave the map-matching framework better general accuracy, even at low speeds, while removing a lot of complexity.	Wrote a profiling framework automatically generating charts in various formats on the memory card when the application exited
Implemented a DOM Level 2 quasi-compliant XML parser in C++ from scratch, and later made it open source.		

Aug 2005 → Feb 2006	Consulting	Paris, France
Freelance consultant		
Wrote a game framework for Windows Mobile handsets, in C++, for Hiyoko-Games.	Taught Linux system administration courses for Nbi.fr.	PHP/Oracle backend development for CubeProduction.com.

Mar 2005 → Aug 2005	RealEyes3D	Embedded SW Publisher	Saint-Cloud, France
Software Engineer			
Ported RealEyes3D's Symbian applications <i>w-Postcard</i> and <i>Digitizer</i> to BREW in two weeks. The two applications have been since released on a dozen models in Japan.	Presented the prototypes running on a W31SA (KDDI) to Sanyo executives at their headquarters in Osaka, making RealEyes3D win its first contract in Japan.		

Oct 2002 → Mar 2005	Atelier	Embedded SW Publisher	Paris, France
Software Engineer			
Implemented large portions of the MIDP 2.0 and eRCP mobile Java platforms' UI framework (respectively LCDUI and eSWT) in C++ for Series80 (Nokia 9300 and 9500) and Series90 (Nokia 7700) phones, for the Nokia Java Component Factory.	Created an on-target automated testing framework for UI components with code coverage based on the SimKin VM, wrote source code analysis tools in Perl and Python, and integrated them with the build bot so that graphical reports were available each morning.		
Started in a 3-person team which eventually grew up to 9 people			

Jan 2001 → Oct 2002	Optima	Consulting Company	Paris, France
Internship (renewed as a full term contract)			Software Engineer
Web applications in PHP and Java, 3D development using OpenGL and writing/maintaining programs in C++			
Apr 2000 → Nov 2000	LogMetrix/Europ@Web	CRM Software Publisher	Paris, France
Internship			Software Engineer
Data-mining and log analysis tools in Java.			

## Education

June 2001	MS in Electrical Engineering, Computer Science, and IT Management
	<b>EFREI - Engineering School of Information Technologies and Management, Paris.</b> Major in Information Systems. Minor in Computer Graphics. <p style="text-align: right;"><b>Activities:</b></p> Teacher at EFFOR, Teaching incoming students the basics of UNIX and the Internet Founder and former president of the BeOS User Group Member of the Linux User Group
June 1996	High School Diploma
	<b>François Mitterrand High School, Moissac, France.</b> <b>Série S</b> with major in Physics. <p style="text-align: right;"><b>Activities:</b></p> Rowing association Morning table football competitions