Calvin Bulla

Personal Data

Place and Date of Birth:	Herne, Germany | 17 June 1994
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Education and Professional Experience

Sep 2015 - *present*
Master in Inovation and Research in Informatics (120 ECTS)
Universidad Politècnica de Catalunya, Spain
Major: High Performance Computing
Current GPA: 8.9/10 (after 30 ECTS)
Research Student at **Barcelona Supercomputing Center**, Spain

Sep 2011 - Jul 2015
Undergraduate Degree in Computer Science (240 ECTS)
Universidad de Las Palmas de Gran Canaria, Spain
Thesis: "Analysis of Adaptive Prefetcher Configuration in Advanced Server-Class Processors" | Advisors: Pedro Medina, Marc Casas
Gpa: 8.8/10

Sep-Dec 2015
Internship at PlayMedusa
Game and Web development

Oct 2011 - Mar 2014
Assistant at Edataunited S.L.
Mobile and Web development

Jun 2011
Offiziele Deutsche Schule Las Palmas, Spain

Notable Projects

UPC 2015 — MIPS-ACE

Verilog implementation of a MIPS-like pipelined processor.
Developed during the course of "Processor Architecture".
Supports most MIPS instructions and syscalls.
Cache with pseudo LRU-replacement, 2-bit branch predictor.
Implemented Mini OS with support for exceptions.
Custom assembler written in Python.

ULPGC/BSC 2014 — Bachelor Thesis

"Analysis of Adaptive Prefetcher Configuration in Advanced Server-Class Processors"

Design of a configurable parallel benchmark suite using the OmpSs programming model to stress the prefetcher capabilites of the IBM POWER7 processor.
The benchmarks run on top of an adaptive runtime system that dynamically reconfigures prefetcher settings based on collected performance metrics.
Instrumented the runtime system to analyze reconfiguration events.
Developed in collaboration with Dr. Marc Casas and Dr. Miquel Moretó from the Barcelona Supercomputing Center (BSC).

PlayMedusa TriSquad

2014 Directed a team consisting of 5 students assigned with the following tasks:

- Design and implementation of a 2-Player Strategy Game using Unity and C#.

- Design and implementation of a generic Backend/API to administrate the communication between asynchronous games, using Javascript, NodeJS/Express and MongoDB.

ULPGC Radikal Chess

2014 Implementation of a chess-like 2-Player Strategy Game and its AI in Java.

Developed during the course "Fundamentals of Intelligent Systems"

Tasks included analysis of common AI implementations for chess, design and implementation of an AI Algorithm, considering different Heuristics. Awarded for best implementation by professors of this course.

Hack for Good Talnet

2014 MockUp for a social network.

Tasks included database layout, backend implementation and frontend design.

ULPGC Electronic Lock

2013 Design and implementation of a lock mechanism, based on the ARduino microcontroller. The necessary keys were stored on a RFID chip. Implemented communication protocol between RFID and controller.

Conferences and Events

Ludum Dare	Design and implementation of a game in 48 hours
Hack for Good	Hackathon
Math. Olympics	Various participations up to 2007
	Best place: Regional 1ST (Coesfeld, Germany)
HPCA/PPoPP/CGO 2016	Volunteer
RoMoL Workshop 2016	Attendee/Volunteer

Languages

German:	Mothertongue
English:	Fluent
Spanish:	Fluent
French:	Basic Knowledge

Additional Information

Programming Languages	Java, C#, C/C++
	Javascript, Python, Perl
	Verilog, bash
Computer Skills	Unix Environment
	Network configuration
	Basic knowledge of embedded systems (Arduino)
	Web development (NodeJs, MongoDB, HTML, CSS)
	Mobile development (Android, Windows Phone)
Other Interests	Travel and Outdoor activites
	Guitar and Reading