

CALVIN BULLA

PERSONAL DATA

PLACE AND DATE OF BIRTH: HERNE, GERMANY | 17 JUNE 1994
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EDUCATION AND PROFESSIONAL EXPERIENCE

SEP 2015 - <i>present</i>	MASTER IN INOVATION AND RESEARCH IN INFORMATICS (120 ECTS) Universitat 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 <i>Game and Web development</i>
OCT 2011 - MAR 2014	ASSISTANT AT EDATAUNITED S.L. <i>Mobile and Web development</i>
JUN 2011	Offizielle 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 PSUEDO 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 PARRALLEL 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).

<i>PlayMedusa</i>	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 ADMINISTER THE COMMUNICATION BETWEEN ASYNCHRONOUS GAMES, USING JAVASCRIPT, NODEJS/EXPRESS AND MONGODB.
<i>ULPGC</i>	RADIKAL CHESS
2014	IMPLEMENTATION OF A CHESS-LIKE 2-PLAYER STRATEGY GAME AND ITS AI IN JAVA. DEVELOPED DURINT 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.
<i>Hack for Good</i>	TALNET
2014	MOCKUP FOR A SOCIAL NETWORK. TASKS INCLUDED DATABASE LAYOUT, BACKEND IMPLEMENTATION AND FRONTEND DESIGN.
<i>ULPGC</i>	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 1 ST (COESFELD, GERMANY)
HPCA/PPoPP/CGO 2016	VOLUNTEER
RoMoL WORKSHOP 2016	ATTENDEE/VOLUNTEER

LANGUAGES

GERMAN:	MOTHER TONGUE
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 ACTIVITIES GUITAR AND READING