





DAMIEN ENGELS

Enthusiastic Hacker

EDUCATION

JULY 2016	Ecole Polytechnique Fédérale de Lausanne GPA: 5.46 / 6.0	<i>Masters Degree in Computer Science</i>
AUG. 2012-MAY 2013	Carnegie Mellon University GPA: 3.77 / 4.0	<i>Exchange Student</i>
JULY 2013	Ecole Polytechnique Fédérale de Lausanne GPA: 5.63 / 6.0	<i>Bachelor Degree in Computer Science</i>

CORE EXPERIENCE

SEPT.-DEC. 2015	 Scala.js improvements <i>Programming Methods Laboratory</i> OPTIONAL MASTER SEMESTER PROJECT. WORKING WITH A PARTNER, WE PORTED THE SCALAMETER MICROBENCHMARKING FRAMEWORK TO SCALA.JS, THE SCALA TO JAVASCRIPT COMPILER. THE KNOWLEDGE ACQUIRED ALLOWED US TO ADD SEVERAL OPTIMIZATIONS TO THE SCALA.JS OPTIMIZER.
SEPT.-DEC. 2014	 Improving C++ Virtual Calls Protection in the Code-Pointer Separation Mechanism <i>Dependable Systems Lab</i> MASTER SEMESTER PROJECT. MODIFIED THE CLANG C++ COMPILER AND BUILT AN LLVM PASS THAT ALLOWS TO ENFORCE VALIDITY OF VIRTUAL TABLE POINTERS AT RUN-TIME WITH NO MEMORY ACCESS AND THUS VERY LOW OVERHEAD (1-5%).
FEB.-JULY 2014	 Symbolic Execution Based Testing <i>Cisco Systems</i> DESIGNED AND IMPLEMENTED TOOLS BASED ON THE S2E PLATFORM AND INTEGRATED THEM INTO CISCO'S TOOL CHAIN AND DEVELOPMENT PROCESS. MEASURED THE BENEFIT OF WHITE-BOX FUZZING FOR CISCO'S PRODUCTS. CONTRIBUTED TO THE S2E PLUGINS.
JAN.-MAY 2013	 Operating Systems Project WORKED WITH A PARTNER TO CREATE A SMALL LINUX-LIKE KERNEL WITH VIRTUAL MEMORY AND PROCESS SCHEDULING. UNCOVERED CONCURRENCY AND MEMORY BUGS TO CREATE A ROBUST FINAL PRODUCT. MANAGED A LARGE CODE BASE (9 KLOC) USING GIT.

TECHNICAL SKILLS & LANGUAGES

PROGRAMMING	SCALA, C, JAVA, C#, BASH, PYTHON, C++, JAVASCRIPT, LUA, PERL	FLUENT	FRENCH, ENGLISH
SKILLS	COMPILER CONSTRUCTION, REACTIVE PROGRAMMING, SYSTEMS PROGRAMMING, WEB DEVELOPMENT, BIG DATA ANALYTICS	BASIC	ITALIAN, GERMAN

ADDITIONAL EXPERIENCE



OCT. 2016

Google
Software engineer

JUNE-SEPT. 2015



Microsoft
Software engineer internship – SharePoint Authentication and Authorization

RESPONSIBLE FOR COLLECTING AND DISPLAYING TELEMETRY ABOUT USER SCENARIOS IN THE CLOUD. DEVELOPED INTERNAL TOOLS TO FACILITATE CREATION AND DEPLOYMENTS OF MONITORS THAT TRACK THE SYSTEM'S HEALTH.

AUG.-SEPT. 2014



SwissMediaPartners AG
Software engineer

RESPONSIBLE FOR THE DESIGN AND IMPLEMENTATION OF A WEB SERVICE. IMPLEMENTED THE REST API AND WEB ADMINISTRATIVE CONSOLE. USED AND GOT FAMILIAR WITH AN EXTENSIVE NUMBER OF WEB DEVELOPMENT TOOLS (PLAY FRAMEWORK, BOOTSTRAP, JAVASCRIPT, COFFEESCRIPT, LESS, SBT)

AWARDS

FEB. 2015 **FIRST PLACE AT START UP WEEKEND LAUSANNE**

SEPT. 2013 **EXCELLENCE FELLOWSHIP** FOR MASTER'S STUDIES AT EPFL

MAY 2013 **DEAN'S LIST** OF THE SCHOOL OF COMPUTER SCIENCE AT CARNEGIE MELLON UNIVERSITY

JULY 2010 **MATHEMATICS AND APPLIED MATHEMATICS DISTINCTION** AT GYMNASSE DE NYON

EXTRA-CURRICULAR ACTIVITIES

MUSICBOT (WORK IN PROGRESS)	EXPLORATION OF WEB TECHNOLOGIES THROUGH EXPERIMENTATION. SCALAJS, WEBSOCKETS, ACTOR PROGRAMMING, PLAY FRAMEWORK, SPOTIFY'S APIS, OAUTH2, MATERIALIZECSS, REACT.
STUDENT ASSISTANT	INFORMATION, COMPUTATION, COMMUNICATION – COMPILER CONSTRUCTION INFORMATION SCIENCE – DISCRETE STRUCTURES – INFORMATION TECHNOLOGY PROJECT
ROWING	CLUB D'AVIRON NYON (3RD PLACE IN 8+ JUNIOR AT THE SWISS CHAMPIONSHIPS) CARNEGIE MELLON VARSITY CREW (2ND PLACE IN 4+ AT THE HEAD OF THE OHIO)
STUDENT COUNCIL	MASTERS CLASS DELEGATE AND VICE-PRESIDENT OF CLIC (ASSOCIATION DES ÉTUDIANTS EN INFORMATIQUE ET COMMUNICATIONS)
HC²	ORGANIZATION OF ONE OF SWITZERLAND'S LARGEST ALGORITHMIC CONTESTS.

PERSONAL DATA

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