






# DAMIEN ENGELS

## Enthusiastic Hacker

### EDUCATION

2013–PRESENT	<b>Masters Degree in Computer Science</b> GPA: 5.51 / 6.0	Swiss Federal Institute of Technology (EPFL)
2012–2013	<b>Exchange Student</b> GPA: 3.77 / 4.0	Carnegie Mellon University (CMU)
2010–2013	<b>Bachelor Degree in Computer Science</b> GPA: 5.63 / 6.0	EPFL

### WORK EXPERIENCE AND PROJECTS

JUN-SEPT 2015	 <b>Microsoft</b> <i>Software engineer internship</i>
SEPT-DEC 2014	 <b>EPFL DSLAB</b> <i>Improving C++ Virtual Calls Protection in the Code-Pointer Separation Mechanism</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%)
AUG-SEPT 2014	 <b>SwissMediaPartners AG</b> <i>Software Engineering</i> HELPED ON ALL LEVELS, FROM THE DECISION ON THE TOOLS USED TO THE INTERACTION WITH THE CLIENTS. IMPLEMENTED SOME OF THE CORE PARTS OF ONE OF THE MAIN PROJECTS IN THE COMPANY. USED AND GOT FAMILIAR WITH AN EXTENSIVE NUMBER OF WEB DEVELOPMENT TOOLS (PLAY FRAMEWORK, BOOTSTRAP, JAVASCRIPT, COFFEESCRIPT, LESS, SBT)
FEB-JUL 2014	 <b>Cisco Systems</b> <i>Symbolic Execution Based Testing</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	 <b>Operating Systems Project</b> 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 SKILLS	SCALA, C, JAVA, BASH, PYTHON, C++, JAVASCRIPT, LUA, PERL WEB DEVELOPMENT, SYSTEMS PROGRAMMING, COMPILERS, BIG DATA ANALYTICS, REACTIVE PROGRAMMING	FLUENT BASIC	FRENCH, ENGLISH ITALIAN, GERMAN
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### AWARDS

FEB. 2015	<b>FIRST PLACE AT START UP WEEKEND LAUSANNE</b>
SEPT. 2013	<b>EXCELLENCE FELLOWSHIP</b> FOR MASTER'S STUDIES AT EPFL
MAY 2013	<b>DEAN'S LIST</b> OF THE SCHOOL OF COMPUTER SCIENCE AT CARNEGIE MELLON UNIVERSITY
JULY 2010	<b>MATHEMATICS AND APPLIED MATHEMATICS DISTINCTION</b> AT GYMNASSE DE NYON

## EXTRA-CURRICULAR ACTIVITIES

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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 HE HEAD OF THE OHIO)

STUDENT COUNCIL    MASTERS CLASS DELEGATE AND VICE-PRESIDENT OF [CLIC](#)  
(ASSOCIATION DES ÉTUDIANTS EN INFORMATIQUE ET COMMUNICATIONS)

[HC<sup>2</sup>](#)    ORGANIZATION OF ONE OF SWITZERLAND'S LARGEST ALGORITHMIC CONTEST.

## RELEVANT CLASSES

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- OPERATING SYSTEM DESIGN AND IMPLEMENTATION (CARNEGIE MELLON UNIVERSITY)
- DATABASES APPLICATIONS (CARNEGIE MELLON UNIVERSITY)
- FOUNDATIONS OF SOFTWARE ENGINEERING (CARNEGIE MELLON UNIVERSITY)
- GRAPH THEORY (CARNEGIE MELLON UNIVERSITY)
- ALGORITHMS (SWISS FEDERAL INSTITUTE OF TECHNOLOGY)
- COMPILER CONSTRUCTION (SWISS FEDERAL INSTITUTE OF TECHNOLOGY)
- DISTRIBUTED ALGORITHMS (SWISS FEDERAL INSTITUTE OF TECHNOLOGY)
- CRYPTOGRAPHY AND SECURITY (SWISS FEDERAL INSTITUTE OF TECHNOLOGY)

## PERSONAL DATA

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PLACE AND DATE OF BIRTH:    MORGES, SWITZERLAND | 5 MAY 1992  
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