# DAMIEN ENGELS Enthusiastic Hacker

#### **EDUCATION**

JULY 2016 Ecole Polytechnique Fédérale de Lausanne

Masters Degree in Computer Science

GPA: 5.46 / 6.0

Aug. 2012-May 2013 Carnegie Mellon University

Exchange Student

GPA: 3.77 / 4.0

JULY 2013 Ecole Polytechnique Fédérale de Lausanne

Bachelor Degree in Computer Science

GPA: 5.63 / 6.0

# CORE EXPERIENCE

SEPT.-DEC. 2015

# Scala.js improvements

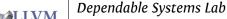


**Programming Methods Laboratory** 

OPTIONAL MASTER SEMESTER PROJECT. WORKING WITH A PARTNER, WE PORTED THE SCALAMETER MICROBENCH-MARKING 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



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**



Cisco Systems

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

Carnegie Mellon University

#### **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 | F

FLUENT FRENCH, ENGLISH

SKILLS COMPILER CONSTRUCTION, REACTIVE PROGRAMMING, SYSTEMS PROGRAMMING, WEB DEVELOPMENT, BIG DATA ANALYT-

BASIC ITALIAN, GERMAN

ICS

#### ADDITIONAL EXPERIENCE

Ост. 2016

Google

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 GYMNASE DE NYON

### **EXTRA-CURRICULAR ACTIVITIES**

MUSICBOT EXPLORATION OF WEB TECHNOLOGIES THROUGH EXPERIMENTATION.

(WORK IN PROGRESS) SCALA.JS, 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 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 contests.

#### PERSONAL DATA

EMAIL ENGELSDAMIEN@GMAIL.COM

LINKEDIN CH.LINKEDIN.COM/IN/ENGELSDAMIEN

GITHUB GITHUB.COM/PAULLEPOULPE

Website **Dengels.CH**Phone +41 78 683 50 99