# Adrian Scoică

## **OBJECTIVE**

#### Software Engineer Intern

## Work Experience

Jul 2013 - Google Inc, New York, NY, USA

Oct 2013 Software Engineer Intern

I was part of the Maps Spam Team, and worked on implementing a new local listings spamfiltering model that would take advantage of the latest Machine Learning solutions developed at Google. I developed a pipeline to automate training, benchmarking, and deploying spam filtering models for Google Maps, and I contributed patches to a ML framework visualizer.

Dec 2012 - University of Cambridge, United Kingdom

 $\label{eq:condition} \textbf{Jul 2013} \quad \textbf{MPhil Dissertation Research Project} \text{ -} \textbf{Multilingual Generative Models for}$ 

Selectional Preference Learning

The project studied the possibility of cross-language plausibility estimation between English and languages in which not enough dependency-parsed data can be obtained to train native generative language models. My research focused on using Latent Dirichlet Allocation to train probabilistic language models, and Bilingual Vector Spaces to align them, and I demonstrated state-of-the art performances on three, previously-untested European languages, with applications in Word Sense Disambigation and Resolution Tasks.

Dissertation available at http://www.cl.cam.ac.uk/~as2270/MPhil\_Dissertation.pdf

May 2012 - Google Inc, New York, NY, USA

Aug 2012 Software Engineer Intern

I was part of the Search Titles Team and worked on improving the quality of the search result titles. I familiarised myself with some of the Natural Language Processing algorithms used for generating alternative titles for web pages, I designed, documented and implemented a title analysis algorithm and used it for a data launch.

Nov 2011 - Politehnica University of Bucharest, Romania

Jul 2012 Bachelor Thesis Project - Automatic Plagiarism Detection in Specialized Corpora

The project studied the characteristics that differentiate specialized corpora from general text samples and the way various successful solutions to the general problem of plagiarism detection were improved and implemented for use on specialized writing.

Thesis available at http://swarm.cs.pub.ro/~adrian.sc/Bachelor\_Thesis.pdf

Jun 2011 - Google Inc, Mountain View, CA, USA

Sep 2011 Software Engineer Intern

I worked on optimizing speed and memory performances and on fixing bugs in Chrome, specifically in the i18n code, and also wrote a speed benchmark for v8 implementations against various JS frameworks, implemented ECMA Script drafts, and started working on Ontology reconciliation across natural languages.

Jul 2010 - BitDefender SRL, Bucharest, Romania

Oct 2010 Software Engineer Intern

I developed a browser independent XSS detection module based on recognizing source code injections and cookie leaking, developed a performance analysis tool for a MongoDB server, and worked on a worker script for the QuickScan cloud.

Oct 2009 - Politehnica University of Bucharest, Romania

Jul 2012 Teaching Assistant - Computer Programming Course, Algorithm Design Course

Data Structures Course, Operating Systems Usage Course

Responsibilities: teach during laboratory classes; write laboratory exercises and homework; write automatic graders for the programming assignments; write tutorials; course repository management.

## EDUCATIONAL BACKGROUND

Oct 2013 - PhD, Natural Language Processing

present University of Cambridge, United Kingdom

The Computer Laboratory (Supervised by Prof. Ted Briscoe)

Oct 2012 - MPhil, Advanced Computer Science, Natural Language Processing

Jul 2013 University of Cambridge, United Kingdom

The Computer Laboratory (Graduated with first-class honours)

Oct 2008 - **BSc**, Major in Engineering and Computer Science Jul 2012 **Politehnica University of Bucharest**, Romania

The Faculty of Automatic Control and Computer Science

(GPA 9.86 out of 10)

Sep 2004 - High School Diploma, Computer Science and Mathematics Major

Jun 2008 "Eudoxiu Hurmuzachi" National College, Rădăuți, Romania

(GPA 9.98 out of 10)

## TRAINING COURSES

Jul 2009 - Technical University of Denmark, Copenhagen, Denmark

Aug 2009 Summer Course on Windmill Technology by BEST

(Board of European Students of Technology)

Feb 2009 - Politehnica University of Bucharest, Romania

Jun 2009 CDL - Open Source Software Development Course by ROSEdu

The final evaluation project consisted of a NetHack clone with a GUI developed in GTK.

Sep 2007 - Oracle Corporation, Romania

Jul 2008 The Oracle Academy - Data Modelling Course

A course on SQL and Data Modelling theory, also covering some of Oracle's DB technologies.

#### Technical Skills

Programming Languages C, C++ (advanced knowledge, industry experience)

Java, JavaScript, Shell Scripting,

SQL, HTML+CSS (good knowledge, industry and school experience)

Python, Perl, HTML, XML, Sawzall,

Assembly Language (beginner knowledge, project-specific experience)

Version Control Systems GIT, SVN, Perforce, Mercurial

Algorithms and Data Structures (programming competitions, university projects, teaching experience)

Operating Systems, Compilers (university projects)

### LANGUAGES

Romanian Native

English Fluent Cambridge Certificate of Proficiency in English (British Council)

German Good Zertifikat Deutsch (Goethe Institute)

**Spanish** Beginner **Korean** Beginner

## Publications

"The Impact of Competitiveness in Open Source on Education Quality: The Romanian Open Source Education Community", A. Scoică, 2<sup>nd</sup> Workshop on Education by Research and Competition, 2012.

"AuthentiCop: Automatic Plagiarism Detection System for Specialized Corpora", A. Scoică, F. Buruiană, Student Scientific Paper Session at the UPB, 2012.

"Automatic Plagiarism Detection System for Specialized Corpora.", F. Buruiană, A. Scoică, T. Rebedea, R. Rughiniș, in CSCS 19th International Conference on Control Systems and Computer Science, pp 77-82, IEEE, 2013.

ACM XRDS Magazine. I have been on the editorial board of the Association for Computing Machinery's international graduate student magazine since December 2012. Being in charge of the Profile column, my job is to select, interview and write stories about world-class computer scientists and tech leaders whose work is related to each issue's topic (more info about the magazine at http://xrds.acm.org/aboutus.cfm).

## Awards

Student Scientific Paper Session at the UPB ACM International Collegiate Programming

Contest - Southeastern Europe Contest

1<sup>st</sup> place - 2012

Honorable Mention, 2009

National Olympiad in Informatics

Honorable Mention - 2005, 2006, 2007

Bronze Medal - 2008

Oracle Global Data Modelling Competition

15<sup>th</sup> place globally - 2008

#### Interests and Activities

## Programming, Artificial Intelligence, Natural Language Processing, Open Source

ACM Council of European Chapter Leaders. I have been a member of the ACM CECL starting October 2012. My work on the council includes setting up and administrating the information sharing infrastructure, studying the benefits of launching an ACM student ambassador program, working on the European Chapter consolidation project, and paving the way for founding an ACM Student Chapter in Cambridge.

Google Student Ambassador. After my first internship at Google in the summer of 2011, I was nominated Google Student Ambassador for our university, a position which further helped me understand the complex interdependence relationship between the industry and the academia.

ROSEdu Member. During my undergraduate studies, I was an active and deeply committed member of the ROSEdu organization, whose mission is to support and develop education based on the values of Open Source. I was on the NGO's Ruling Council from April 2010 until my graduation. The organization has a number of ongoing activities, such as the ROSEdu Tech Talks, the Open Source Development Course (co-organizer in 2009, mentor in 2010), the Web Development Course, the ROSEdu Summer of Code (organizer in 2010), and the Linux Install Fest (co-organizer in 2010, 2011), the HackDays (co-organizer in 2012), as well as numerous plans for the future. During 2012, I promoted ROSEdu at the WERC 2012 conference, as well as with companies such as Google and Facebook.

**ACM Student Chapter.** I was **co-founder** and **vice-president** of the ACM Student Chapter at the Politehnica University of Bucharest prior to my graduation. Within the student chapter, I promoted the use of automated graders in the teaching of Computer Programming at the University and represented the chapter at the **2012 ACM Europe Chapter Workshop** in Paris.

Chess Engine Championship. The chess engine was a group project that we did for the Algorithm Design course at University. Together with the team of four that I lead, we developed an AI engine in C++ that won the championship in 2010.

Google AI Challenge. In 2011, I was part of a team of four students at our university who wrote an AI bot for the Google AI Challenge. Our team ranked 63 in the final championship, out of a total of 7897 teams from universities from all over the world. Within the team, I was responsible with the design of the application and with implementing algorithms to simulate some behaviors in a swarm of ants.

Hobbies: Traveling, Hiking and the Outdoors, Sports, Foreign Languages, Stand-up Comedy