Melanie Sclar

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Summary

Computer Science and Mathematics student, experienced in problem solving and Algorithms, and looking forward to expand my knowledge and improve my skills in the field.

Education

University of Buenos Aires   2012–2017
Currently pursuing Licenciatura en Ciencias de la Computación,
equivalent to Bachelor of Computer Science +MSc. G.P.A. 9.62/10

University of Buenos Aires   2012–2019*
Currently pursuing Licenciatura en Ciencias Matemáticas,
equivalent to Bachelor of Mathematics +MSc. G.P.A. 9.00/10

Superior School in Commerce "Carlos Pellegrini" – University of Buenos Aires   2007–2011
High School Degree with Accounting Specialization. G.P.A. 9.02/10

Honors and Awards

International Awards

Latin American Champion and First to Solve Problem F award in the 39th Annual World Finals of the ACM International Collegiate Programming Contest (ACM-ICPC) in Marrakech, Morocco (2015).

Contestant in the 38th Annual World Finals of the ACM International Collegiate Programming Contest (ACM-ICPC) in Ekaterinburg, Russia (2014).

Champion in the South America/South Regional Contest of the ACM-ICPC (2013 and 2014).

Third place on the South America/South Regional Contest for the ACM-ICPC (2012).

Bronze Medal on the 26th Iberoamerican Mathematical Olympiad (2011) in San Jose, Costa Rica.

Silver Medal on the 21st Southamerican Mathematical Olympiad (2010) in São Paulo, Brazil.

National Awards in Argentina

First, third and second place in Argentine Programming Tournament (TAP) (2014, 2013 and 2012 respectively).

National Champion in Argentine Olympiad in Mathematics (OMA), 2011.

National Subchampion in Argentine Olympiad in Mathematics (OMA), 2008.

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*Expected graduation date.

Work Experience

Software Engineer Intern at Facebook Inc.   January – April 2016

Worked in the Video Encoding Team, on video stabilization algorithms. Researched various methods to understand when stabilization is necessary or not and saving computing time when it is not needed. This unnecessary processing can be very prejudicial since they can deform the video and lower its quality.

Uniformed the formats of all videos on the site, which varied along the company's development. This had various unwanted consequences on the system, which I reverted during the internship.

Software Engineer Intern at Facebook Inc.   January – April 2015

Worked in the Public Content Ranking Team, developing algorithms to improve the quality of recommendations on videos and articles shown in newsfeed. These recommendations are other videos related to the original one, and are shown to the user when he or she starts watching a video.

Teacher Assistant at University of Buenos Aires   March 2014 – ongoing

Responsible of assisting students with their inquiries (involving class projects and exercises) and correcting exams and projects. Currently teaching in Algorithms and Data Structures III.

Coach for Mathematics Olympiads in:

Argentine Model School (EAM)   March 2013 – October 2016

Martin Buber School   March – December 2013

Superior School in Commerce "Carlos Pellegrini" (ESCCP)   March – December 2012

Helped students acquire problem solving techniques and mathematical concepts necessary in Mathematics Olympiads, and stimulated them to continue researching and solving problems on their own.

Patent applications

Sclar M, Puntambekar A, Coward MH, Parsons-Keir, WD, inventors; Facebook Inc, assignee. (1) Foreground detection for video stabilization and (2) A neural network to optimize video stabilization parameters. Attorney Docket Numbers 060406-8393.US00 and 060406.8393-8394.US01, filed on June 30, 2016. Patent pending.

Skills

Algorithms	Experienced due to my participation in informatics olympiads.
Problem Solving	Passionate and highly experienced due to my participation in mathematical and computing olympiads.

Programming Languages

C++	Advanced knowledge, 5 years experience
C	Intermediate knowledge, 5 years experience
PHP / Hack	Intermediate knowledge, 2 years experience
Haskell	Intermediate knowledge, 3 years experience
Java	Basic knowledge, 1 year experience
LaTeX	Intermediate knowledge, 4 years experience

Spoken Languages

Spanish	Native Proficiency.
English	Fluent Proficiency, able to use it professionally.
Portuguese	Fluent Proficiency, able to use it professionally.
French	Advanced Proficiency, able to hold an informal conversation.