Sébastien Arnold

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Education

University of Southern California   **August 2014 - Present**

BS. Computer Science & BA. Mathematics

Continuation of my Bachelor's degree. CS honor society member, Society of Women in Engineering member, 4 Graduate classes. Objective: graduation in 3 years.

ETH Zürich   **September 2011 - August 2013**

BS. Computer Science

German-based instruction, advanced class in parallel and distributed computing, machine learning project with Yuxin Chen, PhD student of Prof. Andreas Krause.

Research Experience

Brain-Body Dynamics Lab - USC   **July 2016 - Present**

Undergraduate Researcher - Advisor: Prof. Francisco Valero-Cuevas

Investigating deep reinforcement learning algorithms for simulated, robotic, and cadaveric hand control.

Simulation and Modelling Lab - USC   **April 2016 - Present**

Undergraduate Researcher - Advisor: Prof. Chunming Wang

Investigating second order optimization methods for distributed deep learning.

Information Science Institute - USC   **January 2015 - December 2015**

Research Assistant - Advisor: Prof. Greg Ver Steeg

Research in quantum optimization of Ising models, and quantum machine learning within the group of Prof. Dr. Daniel Lidar.

Computational Social Science - ETHZ   **June 2012 - January 2014**

Research Assistant - Advisor: Dr. Stefano Balietti

Development of sociological experiments with JavaScript and PHP. Project received appraisal from the European Commission and fundings for coming years.

Industry Experience

Nervana Systems   **August 2015 - August 2016**

Algorithm Intern - Advisor: Dr. Arjun Bansal

Development of distributed deep learning library and project in distributed deep reinforcement learning.

Schneeberger AG   **June 2014 - Novemer 2014**

Lead Developer

Development of a financial management tool for an international usage. Engineering leader in a team of 4.

Tooski   **January 2009 - Present**

Founder

Development of the leading French-speaking skiing website, and its magazine Angulation.

Writings

A Greedy Algorithm to Cluster Specialists   Sébastien Arnold, 2016, *Arxiv Preprint*

Awards

- **David Wiesen Scholarship**: 2016
- **USC Summer Undergraduate Research Fellowship**: 2016
- **USC Academic Achievement Award**: 2015, 2016
- **USC Provost Research Fellowship**: 2015, 2016
- **USC Dean's List**: 2014, 2015, 2016

Languages

- **Bilingual**: French, Italian
- **Proficient**: English, German
- **Basic**: Spanish

Interests

- **Ski**: Throughout my highschool and part of my university studies, I was lucky to race across the Alps on the FIS circuit with the best regional Swiss skiers. This longstanding passion spawned Tooski, and I was once ranked among the best 2'000 racers worldwide.
- **Mathematics**: I am generally interested in mathematics, and more specifically in optimization and stochastic models. I like to apply them to all kinds of problems, especially the ones related to artificial intelligence.
- **Computing**: I have been programming since the age of 14, and have studied different computational hardwares such as GPUs, D-Wave, and HPC Clusters.