André Naz

Looking for a position of Software Engineer in R&D

- 28 years old
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Technical Skills

Programming

C, C++, Java	★★★★☆
Ada, Python, R	★★☆☆☆
Scala, VHDL	★☆☆☆☆

Networking

TCP/IP	★★★★☆
Cisco IOS	★★★★☆

Database

Oracle, SQL	★★★☆☆
Spark	★☆☆☆☆

Web

HTML/CSS	★★★☆☆
PHP, JS	★★☆☆☆

Languages

French: Native
English: Proficient
German: Elementary

Strengths

Problem solving, curious, quick learner, tenacious, initiative, team player, loyal.

Other Interests

Travel: Canada, England, Germany, Hong-Kong, Hungary, Ireland, Italy, Morocco, Portugal, Romania, USA.

Since 2018, recreational programming: Google Hash Code and Code Jam 2018, CodinGame.

Education

2014 – 2017 **PhD in Computer Science**, FEMTO-ST Institute, University of Bourgogne Franche-Comté, Montbéliard, France.
- PhD Thesis: "Distributed Algorithms for Large-Scale Robotic Ensembles: Centrality, Synchronization and Self-Reconfiguration".
- Designed and implemented 7 tools and 5 algorithms for distributed embedded systems (simulations and hardware) in C and C++. 25 KLOC.
- Took part in the technical supervision of 5 software developer interns.
- 7 publications in peer-reviewed international conferences and journals. Best paper award at IEEE AINA (out of 556 submissions). Regional finalist in "Ma thèse en 180 secondes": `https://youtu.be/Pv1eNhVXw1w`
- Teachning Assistant. Course coordinator: Infrastructure of network security. Supervised over 475 hours of labs on programming and computer networking systems for 1st and 2nd year students.

2011 – 2014 **French ``Grandes-Écoles'' Engineer's degree in Computer Science (equivalent to an international MSc)**, Grenoble Institute of Technology - Ensimag, France.
- Average grade: 16.06/20. Highest honors.
- Software engineering emphasis. Advanced algorithm courses. Networking and database courses.
- Sample of projects:
  - Team-based Agile development of: A Java sub-language compiler in Ada; A printer management app using Java and SQL.
  - Developed a parallel Alpha-Beta-based game bot in C++.
  - Implemented graph algorithms (APSP and BFS) in C and Java.
  - Implemented a distributed key certification method for wireless sensor networks in C and evaluated it on hardware nodes.

Fall 2013 **International Exchange Student**, University of Waterloo, Canada.
- Average grade: 89.25%.
- Artificial Intelligence (including Machine Learning), Computer Security and Privacy, Data Warehousing and Mining, Research Project on Data Mining.
- Sample of programming assignments: Simulated annealing, decision tree, Bayes networks, buffer overflow / format string attacks.

Work Experience

Since Dec. 2017 **Postdoctoral Researcher in Computer Science**, FEMTO-ST Institute, Montbéliard, France.
- Extending my thesis work on distributed modular robotic ensembles.

Jan. – Jul. 2014 **Computer Science Research Intern**, FEMTO-ST Institute, Montbéliard.
- Designed and developed a logging protocol and a time synchronization protocol in C for Blinky Blocks modular robotic systems. 2.4 KLOC.

Sep. – Dec. 2013 (1d/week) **Data Science Research Project**, Information Systems and Science for Energy (ISS4E) Laboratory, University of Waterloo, Canada.
- Studied the impact of pool pumps on the peak energy consumption in a residential neighborhood using statistical data analyses (using Java & SQL).

Jun. – Aug. 2013 **Software Engineer Intern**, Computer Science Department., Carnegie Mellon University, Pittsburgh, USA.
- Contributed to add support for the Blinky Blocks platform and the Meld programming language in the VisibleSim simulator. 1.7 KLOC in C++.

Apr. – Jun. 2011 **Software Developer Intern**, Hong-Kong Polytechnic University.
- Developed a simulation platform in Java for collaborative mapping in a group of smart wheelchairs communicating via Bluetooth.