Bastien Mussard

Software Engineer

French national - 31 years old
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(Bold elements clickable)

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in in/bastien-mussard

Scientist by training, looking today for a job leaning more toward programming, which has effectively always been at the core of my work.

- Accustomed to work on cross-functional projects.
- Good dialogue with people of broad backgrounds.
- Team work to launch new features, from creation to production phase.
- Communication on results and innovations, including through the design of helpful data visualization aids.

`Creativity` `Global thinking` `Curiosity`
`Adaptability` `Tenacity` `Team-player`

🛠 SKILLS

Linux, Bash, Unix	●●●●●●
Python	●●●●●●
C, C++	●●●●○○
Git, SVN	●●●●●○
Continuous Integration	●●●○●○
Machine Learning	●●●○○○

Bilingual French (native) and English (daily practical use both personnally and professionally ; lived 3 years in the United States).

💼 EXPERIENCES

Postdoctorate   2017 - 2019
University of Colorado, Boulder, USA
Contact: Sandeep Sharma

Lead a team of 4 PhD candidates.
Handling of large operation and data flows.
Design and creation of scalable algorithms.
Set up best practices and continuous integration.

Invited researcher   July 2016
University of Cornell, Ithaca, USA
Contact: Cyrus Umrigar

Unified implementations to boost performance.
Wrote user/developer docs for complex codes.

Research Engineer   2014 - 2017
Sorbonne University, Paris
Contact: Julien Toulouse

Tasked with production and maintenance of codes.
Optimized core routines in widely used algorithms.
Developed user-friendly libraries for key tasks.
Design and creation of naturally interfacing codes.

📇 PRODUCTIONS

15 scientific publications and significant contributions to major scientific codes:

- **Molpro**: a comprehensive system of commercial programs for advanced calculations.

  In charge of management and support.
  Improved the performance of parts of the code.

- **Dice**: a modern code that takes advantage of the latest advances in the domain, written in C.

  Implementation of most new features.

- **PySCF**: a theoretical chemistry program easy to use, coded in Python and C.

  Handling of interfaces between languages.

- **CHAMP**: a code using stochastic processes.
  Implementation of fast and efficient calculations.

🎓 EDUCATION AND DEGREES

PhD   2010 - 2013
Université de Lorraine, Nancy

MSc   2007 - 2010
École Normale Supérieure, Paris

👤 INTERESTS

Teaching, Outreach, Swimming, Reading, Hiking