



Bastien Mussard

Software Engineer

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in in/bastien-mussard

French national - 31 years old
Resume produced on June 25, 2019
(*Bold elements clickable*)

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

- Acustomed to work on cross-functional projects.
- Good dialog with people of broad backgrounds.
- Team work to launch new features, from creation to production phase.
- Communication on results and innovations, including through visual 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 personally and professionally ; lived 3 years in the United States).



PRODUCTION

15 scientific publications and significant contributions to major scientific codes:

- **Molpro**: a comprehensive system of commercial programs for advanced calculations.
- **Dice**: a modern code that takes advantage of the latest advances in the domain, written in C.
- **PySCF**: a theoretical chemistry program easy to use, coded in Python and C.
- **CHAMP**: a code that uses stochastic processes.



EDUCATION

| | |
|------------------------------------|-------------|
| PhD | 2010 - 2013 |
| Université de Lorraine, Nancy | |
| MSc | 2007 - 2010 |
| École Normale Supérieure, Paris | |
| Higher School Prep. Classes | 2005 - 2007 |



INTERESTS

Teaching, Outreach, Swimming, Reading, Hiking



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 good 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.