

# Software Engineer

## *Algorithms, backend specialist*

### Professional Experience

Nov 17 - present  
**Pivotal**

- Open source developer for Cloud Foundry.
- “Identity” project. Implementing OAuth in Java and Go.

Oct 16 - June 17  
**LiveRamp**  
San Francisco, CA

- Designing and implementing cross team interface for sharing data
- Using map-reduce (Java Cascading) to process daily terabytes of data
- Using servers in our colo and AWS, both for our servers and map-reduce jobs

Nov 15 - May 16  
**MachineZone**  
Palo Alto, CA

- Engineer in the core backend team
- Maintaining core cross-team server side code base, written in PHP
- Writing bots simulating user actions for test environment, in Python

Oct 14 - Oct 15  
**TubeMogul**  
Emeryville  
California

- TubeMogul sells online video advertising slots
- Engineer in the user data-base team
- Process data from multiple parties, making it available in fast access to other teams
- System is built using Java and Kafka. Storing data in DynamoDB, Couchbase, Aerospike
- Threading done using asynchronous libraries like Guava Futures or Rx Observables.
- Wrote web-servers using Java Dropwizard. In particular, one for real-time monitoring of the system.

Feb 13 - Sep 14  
**Google**  
Mountain View,  
California

- Engineer in Adwords Express, a tool to allow very small businesses to have access to advertising on Google Search, by substantially reducing setup time
- Working with Java, C++, Flume
- Owning and maintaining the team’s dashboard, with over 25 graphs reporting production status.
- Several projects implementing internal tools, mostly for deployment and testing purposes
- A lot of fast learning required, working with new tools almost every day

Oct 10 - Feb 13  
**MyLife.com**  
Mountain View,  
California

- Engineer in the search engine team
- Our team rewrote the whole search engine in Python with Solr and Cassandra
- Previously working with Ocaml, Lucene, Hbase
- Preparing multi-terabyte data and index in Hadoop
- Maintaining the people search API — a low latency distributed service — by improving the search relevancy, adding new features, or improving performance

Dec 09 - Sep 10  
**Bouygues**  
Paris, France

- .NET and java programmer
- Creating, maintaining and debugging internal software controlling the real-time flow of commercial text messages automatically sent to customers or received from them

07-08  
**LIP6**  
Paris, France

- Six-month and five-week internships at Paris VI computer science laboratory; algebraic geometry and symbolic computation
- Required excellent knowledge of math and algorithmic for optimizing computation time, due to the double exponential complexity of the algorithm in the degree of the polynomials ( $O(2^{2^d})$ )
- Implement in Magma — a high level symbolic language — an experimental algorithm (rational univariate representation), in order to analyze it and measure its performances against the original algorithm
- Implement a polynomial system solving algorithm in Magma — cylindrical algebraic decomposition — and make it as efficient as possible

2002 - 2008  
Paris, France

- Wrote a distributed computation program, and a compiler from a new language to Turing machine.
- Math and CS tutor

## Education

- 2006 - 2008 • Masters degree in Mathematics/Computer Science at Paris VI university, Pierre et Marie Curie and Ecole Normale Supérieure de Paris
- 2004 - 2006 • Bachelor in Computer Science and Bachelor in Mathematics at University Pierre et Marie Curie

## Skills

### *Software, environment*

- Expert • Linux, Microsoft Windows, Mac OS X
- Java, Python, Ocaml
- Testing (JUnit, ...), Hadoop, Solr, L<sup>A</sup>T<sub>E</sub>X 2<sub>ε</sub>
- CVS/SVN, Git, Perforce, (O)Make, zsh, Emacs, Eclipse, Maven, AWS
- Mastered • C, C++, C#, .NET, PHP, Javascript
- Cassandra, Aerospike
- Notions • Haskell, css

### *Computer science*

- Specialist in algorithmic and type theory
- Programming specialist, thanks to a perfect knowledge of sequential, concurrent, distributed, asynchronous, object, imperative and functional paradigms
- Good knowledge of both SQL and no-SQL data storage
- Good knowledge in cryptology and cryptography

## Languages

English	fluent
French	native language
Finnish	fluent
Portuguese	advanced
Italian	basic

## Other interests

- Music • 20 years of piano
- Sports • Rugby, sailing, windsurfing, basketball, volleyball, golf, tennis, running
- Games • Chess, bridge, all sorts of logic games
- Social • Politics, debates