

Mathieu Leplatre

IT and related technologies Engineer with a 9 years experience

I'm a lead developer at Makina Corpus, mainly involved in Web and GIS Open Source projects. Occasionally, I give talks at conferences and write about Software on my blog.



Contact

- contact@mathieu-leplatre.info
- <http://github.com/leplatrem>
- <http://twitter.com/leplatrem>

Specialties

- Web Technologies
- Cartography | Web mapping
- Software Architecture
- Computer Interaction Design
- Project Management
- Free Software & GNU/Linux

Skills

- **Technologies**
Python | Django | Pyramid
JavaScript | HTML5
PostGIS | Leaflet
Qt | C++
PostgreSQL | NoSQL
- **Methods and Modelization**
Test-Driven Development
Continuous Integration
Provisioning | Virtualization
Scrum | Kanban
Wireframing
DevOps

Education

- **Master in Computer Science**
(2005, University of Paris-Sud).
Courses in graphical interaction techniques and multi-agents systems.
- **Engineer/Advanced Degree in IT**
(2005, Polytech Paris Sud)
Formerly FIIFO, IFIPS, Formation d'Ingénieurs de Paris Sud, Orsay, France. Specializations in database systems and Webservice architectures.

Side Projects

2011- 2014 Daybed

A generic storage and validation REST API (Pyramid, Colander, Hawk), providing "database-as-a-service" on top of pluggable backends (ElasticSearch, CouchDB, Redis). Focused on clean architecture and python best practices (TDD, webtest, Travis-CI, Read-the-docs, Docker). Various front-end helpers are currently being implemented (daybed.js, daybed-backbone).

<https://github.com/spiral-project/daybed>

Subtivals

A tool (C++, Qt) to project subtitles in operas and international movie festivals, used worldwide and mostly dedicated to captions for the hearing impaired community. Kept concerned about straightforward user-experience, slick UI and KISS. Under GPL, packaged for Ubuntu (PPA), Windows (NSIS) and OSX. <http://subtivals.org>

Professional Experience

2010- current Makina Corpus, Toulouse, France, *IT consulting company specialized in Open Source technologies* **Lead developer and project manager**

Geotrek & Geotrek-rando

- Lead developer of Geotrek, a natural park management Web application, now used daily by many cities councils, National and Regional Parks;
- A reference project at Makina, fully built in the open on Github, nicely documented and released under BSD. Its core relies on GeoDjango, PostGIS 2 (topologies, rasters), REST, HTML5 and JavaScript (Leaflet, Mocha, Pjax). Unit and functional tests run on Travis-CI with CasperJS. Private hosted instances are deployed continuously (SaltStack);
- I had the opportunity to mentor interns (WebGL, Babylon.js) and leaded a team of four Django devs following Scrum and DevOps methods.

Open Source Software

- Along the way, I released and maintain a set of Leaflet JavaScript plugins for linear referencing, snapping, file loading and more... (HTML5, SVG). Unit tested with Mocha, Chai and Sinon on Travis-CI ;
- Among others, some notable Django applications I authored are django-leaflet : Leaflet maps and widgets integration (50k downloads); django-geojson : a GeoJSON toolbox (14k); mapentity: a generic CRUD for spatial models (14k); django-screamshot : Web pages capture using Django & CasperJS ;
- Landez, a Python toolbox to ease download and manipulation of map tiles, from a variety of sources such as Mapnik stylesheets, HTTP, WMS or MBTiles files ;
- Merkopolo a C++ starter kit for native GIS applications (Qt, Merkaartor).

Projects

- Various consultancies around Web mapping interaction, GIS data modeling and integration (Python, Django, Backbone.js, Node.js) ;
- Automation of OpenStreetMap mirror deployment, for local administrations, with Webmapping tools included (shell, Ubuntu) ;
- An interactive map on touch table for the Loir-et-Cher 2020 public exhibition (Tilemill, Leaflet, HTML5, REST) ;

Talks

- DjangoCon Europe
- FranceJS
- Capitole du Libre
- DjangoCon France
- DjangoCon Toulouse (Organizer)
- Forum TIC ATEN
- OpenDay Toulouse
- FLISOL Buenos Aires
- See Lanyrd

Languages

- French (native)
- English (TOEIC 940/990)
- Spanish (fluent)
- German
- Catalan

Interests

- Graphical arts, painting
- Nature, hiking, travel & photography
- Free Culture and copyleft
- Technologies as human and social tools
- Independent and decentralized Media

Misc

- Driving License
- Father of two lovely children
- Address:
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FR-31500 TOULOUSE

- Deployment automation of python Web applications (Puppet, Vagrant, Jenkins, CentOS, FPM, buildout) ;
- A geolocalized mobile application for maintenance of telecom networks with offline sync (HTML5, JQuery Mobile, Leaflet) ;
- A desktop application for large road network datasets visualization and manipulation (C++/Qt4, PostGIS, OpenStreetMap) ;
- A Web API for building map tiles datasets on-demand, from a local OpenStreetMap mirror (Mapnik, Python, RabbitMQ, Django) ;
- A high payload online gaming portal, development and deployment (Django, SUDS) ;

Training

- In charge of Git, Leaflet, PostGIS and JavaScript training sessions;
- Many tutorials and tech articles on Makina corporate blog;
- Animation of many Makina Corpus tech-breakfasts.

2009-2010 **Meteo France International, Toulouse, France,** *Global Projects and Integration of Turnkey Meteorological Solutions* **Systems Integration Engineer**

In the process of modernization of the Indian Meteorological Department, I strongly participated to streamline the large-scale and long-term integration operations. Designed and developed an integration documentation platform to assist and capitalize on information (Django, Graphviz, OpenDocument). Worked on meteorological and geographical metadata synchronization, and basic design studies of OGC/GIS Web services solutions.

2008-2009 **Freelance, Buenos Aires, Argentina,**

- Design and development of a customizable and high-level layer for meteorological charts creation (Python, Matplotlib)
- Installation, configuration and training of a cyclone tracking system with public visual displays in Bali, Indonesia. (6 weeks)
- A set of plug-ins to transform the Exaile media player into an Internet radio software (Python, PyGTK)
- Various contributions to Open Source software (Ubuntu, Liferea, Elisa, ...)

Backpacker in South America

2005-2007 **Meteo France International, Doha, Qatar,** *Global solutions for Weather Systems and Services* **Technical Representative and Site Coordinator**

Successfully reached the goals of the Qatar Met Department modernization project, whose major milestone was real-time meteorological assistance to the 15th Asian Games. Within a cordial and project-focused customer relationship, I contributed to development, installation and customization of weather systems, as well as support for end-users products and services. Designed and developed an automatic publishing system for advanced weather reports and graphics (PHP, Ajax, SVG and Java).

Obtention of Engineer and Master diplomas

- 2005 Internship in **Toulouse** concerning Semantic Web and ontologies mediation (Java)
- 2004 Internship in **Munich, Germany** practicing eXtreme Programming (Java)
- 2003 Internship in **London, UK** improving UI interactions (Swing)