MAGALI MEBSOUT

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PROGRAMMING SKILLS

Languages

Python (Pytest, Anaconda, Jupyter Notebooks, Plotly, NumPy, Astropy, PyCharm)

Java (JEE, Spring, Spring MVC, Maven, Ant, Eclipse)

PHP (Laravel, Composer, Blade, PhpStorm)

C, C# (.Net, Visual Studio), Bash.

Web

Frontend (HTML, CSS, Javascript, JSON, Ext-JS, JQuery, Bootstrap, Flask)

Backend (PHP, NodeJS, REST, Tomcat, XML)

Database

MongoDB, SQL, PL-SQLOracle, MySQL, Microsoft SQLServer, PostgreSQL, Liquibase

Tools

Docker, Git, Travis, Sonar, Gitlab-ci, Jenkins

EDUCATION

Computer Programmer/Analyst, AFCEP, Malakoff (France) (equivalent to Bachelor Degree) - 2011
Master of Science in Bioengineering, University of Oklahoma, Norman (USA) - 2009
Bioengineering diploma, Polytech' Clermont-Ferrand, Clermont-Ferrand (France) - 2009

EXPERIENCE

Research Engineer IDOC - IAS, Orsay, 2017 - 2021 (4 years)

Managed Spectral data at IDOC by managing their metadatas and adapting their format according the required specifications for their publications. Also developped and/or maintained visualisation and publication applications for those data in Java, Node-JS and last but not least Python.

- Managed and organised Telemetry data in MongoDB database and implemented their visualisation with Plotly in Jupyter notebooks as well as a Flask web-application using Jinja-2 templates

- Created and unit-tested a Python library to managed MAJIS telemetries and interpret their binary code according the SCOS-2000 norms standard and the applicable MIB formalism.

- Containerised and maintained Node-JS web application with Docker.

- Automated maintenance tasks with bash scripts.

- Published spatial datasets though the Web application SITools2 (JEE, Ant, Ext-Js). Developped java plugins.

- Processed Spectral DataCube files in bulk to translate from one format to another (IDL, FITS, NetCDF) and add metadatas to databases with the development of Python scripts.

- Collected necessary Astrophysics metadatas and Published VO (Virtual Observatory) web services for several datasets.
- Used the in-place GitLab software for code management as well as Redmine for communication around task and project management.
- Contributed in planning definition and task prioritisation with the other team members.
- Documented the code produced with Sphinx as well as produced User Manuals in Asciidoc and Markdown.

Project Manager Boneshaker-Press, Iowa-City (IA USA), 2016
- Ran the project "Encounters with the Imaginary vol-1", a successfully kickstarted art-book involving 20 artists.
    - Defined the planning and Budget
    - Followed closely the work of 5 teams : Artists, Design, Finance, Edition and Marketing
    - Made sure deadlines were known and respected
- Contributed at every level of the book production.

Software Engineer Henix, Paris, 2011-2014
- Developments on the Squash-TM project.
    - Wrote detailed technical and functional specifications
    - Contributed in all levels of development(client/server/dao, tests)
    - Environment : Web, JEE (OSGI, Spring, Hibernate, …), SQL (H2, MySQL, PostgreSQL), Eclipse, Hg …
- Designed and implemented data migrators from similar tools to Squash TM (Java, Spring, Hibernate, Oracle, MySQL, SQL Server, Unit tests, Integration tests).
- Provided customer support.

PUBLICATIONS

published with maiden name: Pagnon
- 2014 Endospanin 1 silencing in the hypothalamic arcuate nucleus contributes to sustained weight loss of high fat diet obese mice. Gene Therapy.
- 2011. Enzyme Prodrug Therapy Designed to Target L-Methioninase to the Tumor Vasculature. Cancer Letters.
- 2009. A fast molecular non-destructive protocol for evaluating aerobic bacterial load on fresh-cut lettuce. Food Science and Technology International.

LANGUAGES

French - native   English - fluent   Spanish - good

ACTIVITIES and INTERESTS

Illustration, magalimebsout.com   Swimming, Scuba diving