Alexandre GALOPIN

Software development engineer Ph.D. in medical informatics

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Currently working for the Prime Video department of Amazon in London, I am a polyvalent software developer driven by a keen interest for new technologies and innovative ways to generate a positive impact on people's life. My background includes a Ph.D in medical informatics and experience in startups and in leading companies.

PROFESSIONAL EXPERIENCE

Software development engineer (SDE2), Amazon, Oct. 2016 - now

London, United Kingdom

- ▶ Participation to the launch of the website in ~200 countries and to the 3-years transition of the Prime Video website to a new Scala/React architecture.
- Implementation of high-impact backend and frontend features for the Amazon Prime Video website using best practices (code review, feature environment testing, continuous delivery, 100% unit test coverage, integration tests, A/B testing) ensuring high compatibility, accessibility and optimal latency. Responsible for the delivery of Watchlist, Invoice history and lazy-loading of Storefront carousels.
- Taking part in the oncall rotation and in the resolution of trouble tickets coming from customer support and internal teams.

<u>Technical aspects</u>: Perl/Mason, React, Scala, AWS, HTML5, CSS3, SCSS, jQuery, Time series analysis, SOA, Accessibility, Agile, SCRUM

Urls: https://www.primevideo.com, https://www.amazon.com/aiv

Lead front-end developer, GoSPOORT, Jan. 2016 - Jul. 2016

Copenhagen, Denmark

- Participation to the elaboration of the GoSPOORT startup from the first days of the company. The main goal of GoSPOORT is to promote a new way to book sport lessons, more flexible and adapted to the consumer's needs.
- Responsible for the technical choices and the development of the front-end platform. Management of a UX developer consultant and collaboration with a UX designer and a backend developer, under direct supervision of the CTO and the CEO of the company and according to Agile methodology.
- Development of a prototype single-page application using Backbone.js and migration to a Symfony2 platform with React user interfaces.

<u>Technical aspects:</u> HTML5, CSS3, SCSS, Bootstrap, jQuery, React, Backbone.js, CasperJS, Vagrant, Git, JIRA <u>Urls:</u> https://www.gospoort.dk

R&D engineer - Ph.D. candidate, VIDAL / INSERM, Sep. 2012 - Oct. 2015

Paris area, France

- ▶ Thesis topic : Ontological modeling of clinical practice guidelines to provide flexible decision support Development of a clinical decision support system for the management of patients with hypertension and type 2 diabetes using semantic web technologies.
- ▶ Analysis of clinical guidelines using natural language processing techniques and ontologies to identify shared concepts and specificities.
- Formalization of clinical practice guidelines and development of a JS widget producing an interactive and browsable decision tree to allow patient data structuration using medical terminologies (ICD-10, DRC, CISP2).

<u>Technical aspects</u>: JAVA, PHP, MySQL, Python, OWL, SWRL, JENA API, HTML5, CSS3, JavaScript, RequireJS, Graphviz, Tomcat, Maven, REST, XML/XSD, Test Driven Development, Continuous delivery, Git, LaTeX <u>Urls</u>: https://www.vidal.fr/recommandations/

Independent iOS developer, Sep. 2011 - Sep. 2012

Paris area, France

- ▶ Development of Génériques TV, an Apple Appstore featured iOS game that was downloaded 100,000 times. Integration of Game Center, Facebook and Twitter sharing.
- Development of CeleBody, an iOS application that calculates the body similarity between the user and the most famous women to help them maintaining an healthy waist-hips ratio.

<u>Technical aspects :</u> Objective-C, SQLite, CocoaPods, Social framework <u>Urls :</u> https://itunes.apple.com/app/generiques-tv/id467576578, https://itunes.apple.com/app/celebody/id919961248

Scientific developer intern, Sanofi, Mar. 2011 - Sep. 2011

Paris area, France

▶ Implementation of modules for XDB2 (X-Ray Cristallography Database), an internal web-based platform used by 200 scientists of the Structural Biology department to enter data about every step of the crystallization process.

Technical aspects: ASP.NET/C#, PL/SQL, Oracle DB

EDUCATION

2015	Ph.D. summa cum laude	Université Pierre et Marie Curie (UPMC) Paris, France	Medical informatics and knowledge engineering
2011	M.Sc. cum laude	Université Paris Sud & Ecole Polytechnique Orsay - Palaiseau, France	Bioinformatic and biostatistics
2009	B.Sc. cum laude	Université d'Evry Val d'Essonne <i>Evry, Franc</i> e	Computer science

SKILLS

Informatics

- ▶ <u>General</u>: Perl/Mason, Python, PHP, JAVA, C#
- $\blacktriangleright \ \underline{\text{Web:}} \ \mathsf{Javascript, HTML5, CSS3, SCSS, Bootstrap, XML/XSD}$
- ▶ <u>JS frameworks / libraries</u>: React, Node.js, Backbone.js, jQuery, RequireJS, AngularJS, Underscore.js, Express, Gulp, Grunt
- ▶ Mobile development : Objective-C, Cocoa, CocoaPods, WatchKit, XCode, Android Studio
- ▶ <u>Semantic Web</u>: OWL, SWRL, RDF, JENA API, Protégé
- ▶ <u>Databases</u>: MySQL, MongoDB, SQLite, Oracle, PL/SQL
- ▶ Scientific : R, Scilab
- Other skills: Git, Agile, SCRUM, JIRA, Vagrant, REST, Tomcat, Maven, Test-Driven Development, Continuous delivery, Photoshop, Illustrator, UNIX

Topics

Medical informatics, Artificial intelligence, Decision support, Knowledge engineering, Semantic web, Ontology, Natural language processing, Web development, iOS development, Project management, Scientific writing, Research

SCIENTIFIC PUBLICATIONS

Thesis

 Modélisation ontologique des recommandations de pratique clinique pour une aide à la décision à niveaux d'abstraction variables

Ontological modeling of clinical practice guidelines to provide flexible decision support

Alexandre Galopin

Université Pierre et Marie Curie - Paris VI, 2015. Français.

Journal articles

 Using Therapeutic Circles to Visualize Guideline-Based Therapeutic Recommendations for Patients with Multiple Chronic Conditions: A Case Study with GO-DSS on Hypertension, Type 2 Diabetes, and Dyslipidemia.

Brigitte Séroussi, <u>Alexandre Galopin</u>, Mouhssin Gaouar, Suzanne Pereira, Jacques Bouaud Stud Health Technol Inform. 2017

 Design of a Fine-Grained Knowledge Model for the Formalization of Clinical Practice Guidelines: Comparison with GEM.

Jacques Bouaud, <u>Alexandre Galopin</u>, Assia Oulad Kouider, Brigitte Séroussi Stud Health Technol Inform. 2016

An Ontology-Based Clinical Decision Support System for the Management of Patients with Multiple Chronic Disorders.

<u>Alexandre Galopin</u>, Jacques Bouaud, Suzanne Pereira, Brigitte Séroussi Stud Health Technol Inform. 2015

• Clinical practice guidelines consistency for patients with multimorbidity: a case-study in the management of type 2 diabetes and hypertension.

<u>Alexandre Galopin</u>, Jacques Bouaud, Suzanne Pereira, Brigitte Séroussi Stud Health Technol Inform. 2015

 Using an ontological modeling to evaluate the consistency of clinical practice guidelines: application to the comparison of three guidelines on the management of adult hypertension.

<u>Alexandre Galopin</u>, Jacques Bouaud, Suzanne Pereira, Brigitte Séroussi Stud Health Technol Inform. 2014

• Comparison of clinical practice guidelines from a knowledge modelling perspective: a case study with the management of hypertension.

<u>Alexandre Galopin</u>, Jacques Bouaud, Suzanne Pereira, Brigitte Séroussi Stud Health Technol Inform. 2014

• Using knowledge modeling to compare clinical practice guidelines: A case study with the management of hypertension

<u>Alexandre Galopin</u>, Jacques Bouaud, Suzanne Pereira, Brigitte Séroussi Stud Health Technol Inform. 2014

Conference papers

 Utilisation des techniques de modélisation des connaissances pour la comparaison de recommandations de pratique clinique: application à la prise en charge de l'hypertension

<u>Alexandre Galopin</u>, Jacques Bouaud, Suzanne Pereira, Brigitte Séroussi *JFIM 2014*

PERSONAL PROJECTS

Le Londonien - lelondonien.co.uk, 2018

Creation of a theatre website where I share my reviews and advices about cultural events in London. I worked in a close relationship with press officers of major theatres including Royal Opera House, English Nation Opera, SOHO Theatre, Trafalgar Studios and reviewed more than 50 shows.

Technical aspects: PHP, HTML5, SCSS, SEO, Twitter API, Writing

MyJobPartner, 2015

Development of a web platform designed to help job seekers to manage their applications and to find relevant jobs. *Technical aspects: Node.js, Express, AngularJS, Grunt, MochaJS, MongoDB, RESTAPI, SASS, HTML5*

Food Alerts, 2015

Creation of a prototype Android application for a quick analysis of food and drug composition and allergen detection. Food Alerts won the "HEALTH SOLUTION MOST LIKELY TO SUCCEED" award at the Hacking Health Camp 2015. Technical aspects: Android SDK, Photoshop

MILW - Movie collection manager, 2012

MILW is a multi-user website created to facilitate the management of large movie collections. The goal was to offer a great responsive interface but also methods to make the best use of a collection such as a movie recommendation tool based on a scoring algorithm. The website is developed in PHP/MySQL and relies on the Allociné API to get all the information about movies.

Technical aspects: PHP5, MySQL, JQuery, HTML5, CSS3

MangaDownloader, 2012, 2015 (v2)

MangaDownloader is a website developed to allow users to download and manage their manga and comics collections. It relies on manga reading websites such as Mangafox or MangaReader. We then offer features to improve reading experience such as one-click download, automatic updates or export to CBZ.

Technical aspects: Node.js, Express, PHP5, MySQL, React, JQuery, HTML5, CSS3

ADDITIONAL INFORMATION

Languages French (mother tongue)

► English (full professional proficiency, BULATS C1)

German (elementary proficiency)

Danish (beginner)

Driving license Category B + vehicle

Culture & sports Tennis (competitive level), Cyclism (competitive level), Handball, Surf

Theatre/Opera/Ballet, Traditional art, Digital photography, History of France

Other Ph.D. student delegate at the LIMICS (UMR-S 1142) laboratory council (2013-2015)

Supervision of a M.Sc. trainee (2015)