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Bahá El Kassaby

Experience

2019–present **Senior Scientific Software Engineer**, *The Jackson Laboratory*, Bar Harbor, USA.
Member of the Computational Science team.

2017–2018 **Senior Software Engineer**, *Self-employed*, Podgorica, Montenegro.
Development work as a contractor in collaboration with *Kichwa Coders* on various open-source Eclipse projects (Nebula, DAWNSci, January, CDT). Personal interest in cloud technologies with hands-on experience with Docker and Kubernetes (Minikube). Other personal projects include learning and using Machine Learning tools like Tensorflow.

Environment: Eclipse RCP, Java, OSGi, Python, PyDev, JFace, SWT, Draw2D, JSON, Docker, Wildfly/Swarm, microservices, Kubernetes, Git, Gerrit, Squish/JUnit Tests, Jira, Agile.

2011–2017 **Software Engineer**, *Diamond Light Source*, Harwell, Oxford, United Kingdom.
Member of the Scientific Software group responsible for delivering data analysis tools to support the science undertaken at the UK's national synchrotron. Work and achievements include:

- **Release management, development, maintenance and support** of the open-source scientific Data Analysis WorkbeNch (DAWN)
- **Lead on producing requirements, specifications and delivering upgrade and new features** for the i06 beamline. Main developments include a new stitching routine for stack of images, new UI design and performance improvement for data loading
- Active **committer on open-source projects** (DAWNSci Eclipse Project, Nebula Visualization-XYGraph)
- **Researched and initiated** the leverage of open source libraries. Implemented a programming layer between DAWN and an image processing library to be able to use its various algorithms (image transformation, filtering, feature recognition, etc)
- **Presented latest developments at technology conferences through talks and posters**. Represent Diamond when Science Working Group meetings take place. Learn about the latest trends at such technology conferences (JavaOne, EclipseCon, etc)
- **Produced project plans and documentation** and **implemented appropriate software testing** regimes as part of the development process.

Article: *Data Analysis WorkbeNch (DAWN), M. Basham, J. Filik, M.T. Wharmby, P.C.Y. Chang, B. El Kassaby, M. Gerring, et al., J. Synchrotron Radiat. 22 (2015) 853–858.*

Environment: Eclipse RCP, Java, OSGi, Modular architecture, Python, PyDev, JFace, SWT, JavaFX, Draw2D, Scipy, Numpy, HDF5, Google AppEngine, JSON, JavaMail, Jenkins, Git, Gerrit, Squish/JUnit Tests, Jira, CI, TDD, Agile.

2008–2011	**IT Manager/Engineer**, *IFIS*, Paris, France.

Technical Manager in a company specialized in providing projects of interest from international funding agencies. Work and achievements included:

- ○ **Development, management and maintenance** of a full scale information system
- ○ **Improved features, user experience and performance** of J2EE web application
- ○ **Reduced expenditures by 1/2** as well as hardware and software upgrade
- ○ Writing of technical documentation; **improvement of code maintenance**; technical presentation to clients; recruitment of team members.

Environment: JSP, JSTL, Java Beans, Servlet, JDBC, Swing, JAXB, XML, JavaMail, SQLServer 2008, T-SQL, Joomla CMS, LAMP, Tomcat, Eclipse.

Computer skills

Languages	Java (10yrs), Python (3yrs), C (2yrs), C++ (1yr), C# (2yrs), Javascript (3yrs)	*RDMS*	MySQL, MSSQL, Oracle, MariaDB, PostgreSQL
Technologies & Frameworks	Eclipse RCP, JEE, SWT, JavaFX, Swing, TensorFlow, Spring	*Cloud Technologies*	Docker, Kubernetes, Google Cloud, AWS
IDE	Eclipse, NetBeans, IntelliJ, MySQL-Workbench, Xcode, Visual Studio, JEdit	*Applications*	Matlab, WEKA, Protégé, LATEX, Open Office, and other productivity packages
Web&Mobile	JSP, JSTL, PHP, JavaScript, HTML5, Servlet, Microservices	*Operating Systems*	Windows, Apple OS X, Linux, BSD
Application Server	Apache / Tomcat, JBoss, GlassFish, Wildfly	*Methodologies*	OOD, UML, Agile development, XP

Education

2006–2007	**M.Sc. in Computer Science**, *University Of Liverpool*, Liverpool, UK.

Graduate coursework including: Advanced Algorithm Techniques, Research Methods, Knowledge Representation, Security and Privacy, Multi-Agent Systems, Actions and Change Systems, Data Mining and Advanced Web Technologies

Thesis: *A Java GUI for the NuSMV Model Checker*
Advisors: Dr. Ullrich Hustadt & Dr. Boris Konev
Description: Research, specification, design and implementation of a Java diagram editor used as a front-end for the NuSMV symbolic model checker (Environment: Swing, Jung, Eclipse, NuSMV)

2003–2006	**License d'Anglais, Littérature et Civilisation**, *La Sorbonne Nouvelle*, Paris.

Equivalent to a B.S. in English/American Literature and Civilization

2000–2003	**DUT GEII**, *Université de Savoie*, Annecy, France.

Equivalent to a BTEC Higher National Diploma (Advanced Diploma) in Electrical and Computer Engineering

Languages

French	**Mother tongue**	*Born and raised in France*
English	**Fluent**	*Studied and worked in England*
German	**Beginner**	*High-school level*
Serbian	**Learner**	*Currently living in Montenegro*

Interests

Community service:	Volunteering in junior youth empowerment programs. BAFA certification holder: Equivalent to a youth leader certification
CS:	Logic in Computer Science, machine learning, data mining, HCI, augmented reality
Science/Reading:	member of the ACM (Association for Computing Machinery), philosophy of science, physics
Sport:	basketball, cycling, running, swimming.

References

Available upon request.