Aleksandra Nenadic, PhD

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Professional profile

Over the past 5 years committed to ongoing improvement of research software practice through training and community engagement work via the UK's Software Sustainability Institute and ELIXIR EU Life Sciences Infrastructure Project. Driving the training trends forward by helping communities roll out new training strategies and develop curricula for research in individual domains. Maintaining the UK's pivotal role within the international Carpentries community by running events, helping organisations and individuals deliver Software, Data, Library and HPC Carpentry training, driving key strategic decisions and handling national and international collaborations and outreach with different training communities.

Career summary

June 2016 - present Software Sustainability Institute, UK

Training Team Lead

- Working to improve the provision and access to training in foundational computational
 and data management skills and best practices for open and reproducible research for
 UK researchers across domains by diffusion of a model of training based on
 pedagogical research and principles of openness, inclusivity, accessibility and
 collaboration.
- Engaging with UK HE institutions, universities, CDTs, projects and communities of practice involving research software training in the UK and worldwide by providing them with consultancy, guidance and support around building a computationally skilled researcher base.
- Supporting the training community in the UK by organising and teaching Carpentry
 and Instructor Training workshops and other training events to build capability and
 capacity within the research community in the UK and worldwide.

2014 - 2016 ELIXIR EU Life Sciences Infrastructure Project

Technical Training Coordinator and Senior System Architect

Helped roll out Software and Carpentry programmes in EU and UK by training ~280 life sciences researchers and 20 instructors from 13 EU countries and facilitated further growth of the Carpentry communities in Europe in various other domains.

- Designed, project managed and co-developed the implementation of TeSS training portal (Ruby on Rails) for browsing and automated discovery of life sciences training resources aggregated from ELIXIR nodes and 3rd-party providers.
- Co-lead of the BioSchema community for the development of BioSchemas for life sciences training materials - a standard Schema.org markup to structure online training resources in life sciences

2002 - 2014 University of Manchester, UK

Product manager (2013 - 2014)
Senior Research Software Engineer (2010 - 2013)
Research Software Engineer (2008 - 2010)
Post Doctoral Researcher (2006 - 2008)
Research Associate (2002 - 2006)

- Product manager for <u>Taverna</u> (Java) and <u>BioCatalogue</u> (Ruby on Rails product deployed on the EBI's Embassy cloud) projects.
- Development, deployment and maintenance of several Web registries, services, portal applications and scientific workflow execution software projects <u>Taverna</u> (Java), <u>BioCatalogue</u> (Ruby on Rails product deployed in the EBI's Embassy cloud), <u>BioVel</u> (Ruby on Rails product deployed on AWS) <u>SCAPE EU</u> (Hadoop's MapReduce), <u>NelSS</u> (Java portlet).
- Research and development of a number of security-related projects:
 Shibboleth-enabled Bridge to Access the National Grid Service (FAME-PERMIS),
 feasibility study for JISC including requirements engineering and consulting on levels of authentication assurance for the UK Research and Higher Education communities (eS-LoA), Single Sign-On solution for multi-level user authentication and federated identity and access management (FAME), prototype for secure online exchange of digital goods (FIDES).

2000 - 2001 eMobile (UK) Ltd., Manchester, UK

Software engineer

1999 - 2000 DUEL, Belgrade, Serbia

ORACLE database developer

Activities

- BBSRC National Capabilities Mid-Term Review Panel member 2019
- Expert at Mozilla Open Life Sciences Leadership Programme 2019-2020
- Curriculum Advisory Committee Member Public Health and Health Data Research 2018-present
- Conference Organiser CarpentryCon Madison, US 2019-2020
- Conference Lead Organiser/Project Manager CarpentryConnect Manchester 2019

- Health Data Research Training Panel HDR UK Health data science fellows network -2018
- Software and Data Carpentry workshop instructor and organiser instructed at over
 20 and organised 12 Carpentry Workshops 2015-2019
- Instructor Trainer taught at 8 Instructor Training workshops (of which 3 were self-organised) - 2017-present
- Volunteer and workshop helper EuroPython Edinburgh 2018
- Co-lead of the BioSchema community for the development of BioSchemas for life sciences training materials - a standard Schema.org markup to structure online training resources in life sciences - 2015-2016

Education and qualifications

- ILM Level 5 Award in Leadership & Management with Project Management -Institute of Leadership and Management - 2019
- Carpentries Instructor Trainer 2017
- Certified Data Carpentry Instructor Data Carpentry 2016
- Certified Software Carpentry Instructor Software Carpentry 2014
- PhD in Computer Science University of Manchester, UK 2005
- BSc in Mathematics and Computer Science (1st class Hons) University of Belgrade,
 Serbia 1999

Selected recent publications

Refereed

Sufi, S., Nenadic, A., Silva, R., Duckles, B., Simera, I., et al. (2018) Ten simple rules for measuring the impact of workshops. PLOS Computational Biology 14(8):e1006191, https://doi.org/10.1371/journal.pcbi.1006191

Larcombe, L., Hendricusdottir, R., Attwood, T. et al. (2017). ELIXIR-UK role in bioinformatics training at the national level and across ELIXIR. F1000Research 2017, 6:952 https://doi.org/10.12688/f1000research.11837.1

Pawlik, A., van Gelder, C., Nenadic, A. et al. (2017) Developing a strategy for computational lab skills training through Software and Data Carpentry: Experiences from the ELIXIR Pilot action F1000Research, 6:1040, https://doi.org/10.12688/f1000research.11718.1

Nenadic, A., Beard, N., Thurston, M., Sansone, S. A., Goble, C. A., & Attwood, T. (2016). TeSS–Training Portal. F1000Research, 5.

Ison, J. et al. (2016). Tools and data services registry: a community effort to document bioinformatics resources. (2016). Nucleic Acids Res., 44(D1):D38-47. doi: 10.1093/nar/gkv1116

Beard, N., Nenadic, A., Attwood, T., Goble, C., Thurston, M., & Sansone, S. A. (2015). ELIXIR's Training eSupport System—TeSS. F1000Research, 4.

Unrefereed

Nenadic, A., Sufi, S. (2019), CarpentryConnect Manchester 2019 Conference (CCMcr19) (2019). Report, https://zenodo.org/record/3458023.

Sufi, S., Aragon, S., Nenadic, A., Software Sustainability Institute's Event Organisation Guide (2019). https://event-organisation-guide.readthedocs.io/en/latest/.