Stojan Jovanović, Ph.D.

Senior Data Scientist & AI Systems Architect



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About me ——

As a professional with years of experience in data science, I am comfortable with every part of the modern analytics pipeline, from initial model prototyping to MLOps. In addition to this, I have considerable expertise in the field of data & ML systems architecture, having designed both computational infrastructure, as well as data storage and processing systems, built to support AI solutions. So far, I have worked professionally in the domains of finance, advertising and healthcare.

Skills ——

Pandas, Numpy, Scikit-Learn

Tensorflow, Keras

Docker, Podman

PostgreSQL, MySQL

Spark, Dask, Modin

Jupyter, Nteract

*nix admin, systemd, bash, nginx

Ansible

tidyverse, ggplot2, purrr

Neo 4J

Scala

git

(*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

Experience

 $01/20 - 04/20 \; {\rm Machine \; Learning \; Architect} \qquad \qquad {\rm Sensyne \; Health \; Plc, \; Oxford, \; UK}$ Led the design and implementation of the entire ML infrastructure pipeline for a commercial project, facilitating collaboration by 3 teams of 30 data scientists. Led deployment of central database server, storing sensitive patient data from NHS trust partners. Deployed the AI lab remote working infrastructure at the onset of Covid-19 pandemic. Served as principal Data/MLOps engineer for company's AI lab.

 $04/19 - 12/19 \ Senior \ Machine \ Learning \ Researcher \qquad Sensyne \ Health \ Plc, \ Oxford, \ UK$ Developed ML infrastructure for company's AI lab from the ground up. Patented ML solutions for risk prediction and unsupervised detection of sub-populations in heart failure patients. Wrote a library for out-of-core data validation, generating data summary reports for in-house clinicians.

 $05/18 - 03/19 \; {\rm Machine \; Learning \; Engineer} \qquad \qquad {\rm Adverai \; Ltd, \; Stockholm, \; Sweden}$ Designed and engineered Adverai's entire ML infrastructure stack. Introduced time-series prediction and anomaly detection functionality to the company's core software product.

04/17 - 05/18 Data Scientist Qliro AB, Stockholm, Sweden Designed and built a system for scheduled re-training and scoring of credit risk models on top of Hadoop, Spark and H2O.ai, automating manual credit reserve reporting processes. Helped move ETL processes from SQL to Hadoop, as the company expanded into new markets.

04/16 - 04/17 Data Scientist Kavli Institute, Trondheim, Norway Developed a novel, latent-variable RNN to predict time series of electrical activity of rat neurons. Currently preparing a publication with the person that continued my research.

Personal Projects

MLHub A small ML playground web service, based on FloydHub. Built using Flask, Jinja2, Keras and Tensorflow. Hosted on Heroku.

Found here —> link

GolangPong A simple version of the video game Pong, written in Golang. Built with Simple DirectMedia Layer (SDL) and the Golang standard library. Found here —> link

Education

2012 - 2016 Ph.D. in Comp. Neuroscience / Computer Science Magna Cum Laude Bernstein Centre Freiburg, Freiburg im Breisgau, Germany KTH Royal Institute of Technology, Stockholm, Sweden Erasmus Mundus Joint PhD Programme

2010 - 2011 M.Sc. in Applied Mathematics 9.5/10.0 GPA University of Belgrade, Serbia.

Principal subjects: graph theory and mathematical optimization

2006 - 2010 B.Sc. in Statistics, Actuarial and Financial Mathematics 9.2/10.0 GPA University of Belgrade, Serbia Principal subjects: probability theory, mathematical statistics,

financial and actuarial mathematics

Invited talks and study visits

02/17 Visiting Researcher at the Institute for Advanced Study, Princeton, New Jersey

08/16 Invited to speak at the Institute for Materials Science, Los Alamos National Lab, Los Alamos, New Mexico