Résumé - Arash Shahsavari

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Education

2016 - 2019 Gothenburg, Sweden
M.S. in Complex Adaptive Systems - Chalmers University of Technology
Selected Coursework: Neural Networks, Stochastic Optimization, Information Theory, Dynamical Systems.

Fall 2017 Seoul, South Korea
Exchange Studies - Dongguk University
Selected Coursework: Multiple View Geometry, Deep Learning.

2013 - 2016 Lund, Sweden
Electrical Engineering - Lund University
Selected Coursework: Multivariable Calculus, Control Theory, Mathematical Statistics, Numerical Analysis.

Experience

2019- Cambridge, UK
Bioinformatician - University of Cambridge
- Long-term data science work on multiple biomedical projects (60+ datasets for 20+ different projects, typically juggling 3-7 projects at a time), with multiple weekly deliverables.
- Machine learning and statistics on terabyte-scale datasets, using a broad mix of techniques and tools.
- Developed R package ClustAssess from scratch, which I continue to maintain.
- Involved in entire recruitment pipeline, from designing technical skills test, to selecting candidates for interviews, interviewing and final recruitment decisions.
- Co-authoring multiple peer-reviewed scientific publications.

2018-2019 Gothenburg, Sweden
Volunteer - Kodcentrum
- Teaching coding to classes of ~20 children aged 10-12 from underprivileged areas.
- Planning and structuring classes, hands-on support to children and other volunteers.
- Long-term development of the learning platforms and curriculum.

Teaching and Mentorship

Teaching
- Developing curriculum and training materials for single-cell data analysis course in Cambridge (2022).
- Intro to Machine Learning - Lecturing for PhD students and postdocs in Cambridge (2021).
- Teaching coding to children and developing teaching materials and curriculum at Kodcentrum (2018-2019).

Mentorship
- Coached Computer Science M.Sc. student through 6-month Cambridge internship with weekly 1-on-1s. Advised and assisted the intern to contribute to open-source software and co-author scientific publication (2021). The person is now joining the group as a full-time employee.
- Onboarded 8 junior group members in Cambridge and created code, documentation, pipelines and workflows to accelerate their integration into the work environment.

Skills and Development

- **Programming Environments:** Python (Optimization example), R (Clustering evaluation package, Random Forest feature selection example), Julia (Outlier detection example, Optimization example), MATLAB, C++, Bash, SQL, LaTeX, Arduino.
- **Computing Tools:** SLURM, git, Jupyter Notebook (Example), R Markdown (Example).
- **Software Packages:** ClustAssess - developed from scratch, currently package maintainer Github, Example, Documentation.
- **Scientific Publications:** 4 papers on biomedical data science.
- **Professional Courses:** Python for Bioimage Analysis - week-long course by the Royal Microscopical Society.
- **Self-Studied Books and Courses:** Intermediate Linear Algebra, Computational Linear Algebra, Real Analysis, Combinatorics & Graph Theory, Reinforcement Learning.
- **Webpage:** sharash.github.io

For an updated version of this résumé with hyperlinks, see sharash.github.io/resume.pdf