

Curriculum Vitae – Mr. Arash Shahsavari

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[🌐, 📄, webpage](#)

Education

2016 - 2019 M.S. in Complex Adaptive Systems - Chalmers University of Technology

Gothenburg, Sweden Thesis: *An Evaluation of Multi-Step Analyses of Single-Cell RNA Sequencing Data*.

Advisor: Rebecka Jörnsten.

Selected Coursework: Neural Networks, Stochastic Optimization, Information Theory, Dynamical Systems.

Fall 2017 Exchange Studies - Dongguk University

Seoul,
South Korea

Selected Coursework: Multiple View Geometry, Deep Learning.

2013 - 2016 Electrical Engineering - Lund University

Lund,
Sweden

Selected Coursework: Multivariable Calculus, Control Theory, Mathematical Statistics, Numerical Analysis.

Experience

2019- Bioinformatician at University of Cambridge

Cambridge,
UK

- Long-term data science support for multiple biomedical projects (50+ datasets for 10+ different projects).
- Machine learning and statistics on terabyte-scale datasets.
- Involved in entire recruitment pipeline, from designing recruitment test, to selecting candidates for interviews, interviewing and final recruitment decisions.
- Teaching machine learning to PhD students and postdocs at Institute.
- Mentoring intern to contribute to open-source software and scientific publication.
- Co-authoring peer-reviewed scientific publications.

2018-2019 Volunteer at Kodcentrum

Gothenburg,
Sweden

- Teaching coding to children 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 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

- Andi Munteanu, UAIC Computer Science M.S. student and Cambridge bioinformatics intern. Guided him to contributing to open-source software and co-authoring scientific publication (2021).

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, \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](#)