Veli-Pekka Parkkinen

GitHub: github/vpparkkinen | web: vpparkkinen.github.io | LinkedIn: Veli-Pekka Parkkinen

Education

PhD, Philosophy of Science, University of Oslo, Oslo, Norway, 2011 – 2014

Work Experience

Postdoc (2018 - 2022) and **Researcher** (2022 - present) University of Bergen, Bergen, Norway

- Researched and developed the conceptual foundations and methodology of automated causal learning, particularly that of the 'Coincidence Analysis' ('CNA') method, as a member of two research projects funded by the Trond Mohn foundation and the University of Bergen, and by the Norwegian Research Council.
- Developed and published software for causal data analysis in `R`. This software has so far been applied in public health, health services research, comparative politics, and business analytics. Built data simulation software with `R` and `Python` for the research project's internal use.
- Built and maintained the research project's cloud infrastructure for running simulation experiments on NREC, an OpenStack-based IaaS for scientific computing.
- Published academic papers on causality and causal inference, and presented at international conferences.
- Taught causal data analysis with `R` and Coincidence Analysis at University of Bergen (Bergen), Prague University of Economics and Business (Prague), RUSH University Medical Center (Chicago), and National Research Centre for the Working Environment (Copenhagen).

Postdoc University of Kent, Canterbury, Kent, United Kingdom, 2015 - 2018

- Researched causal reasoning in medicine and public health, particularly how evidence of statistical association and evidence of mechanisms is combined to establish causal claims. Published academic papers and a practical handbook for evaluating evidence of mechanisms in medicine. Presented at international conferences.
- Organized weekly work-in-progress seminars, two workshops and one conference.

Skills

Causality

- Causal inference (estimation) using Directed Acyclic Graphs (DAGs) and the potential outcomes ("Neyman-Rubin") model.
- Causal discovery using DAG-based methods and case-focused comparative methods such as Coincidence Analysis and Qualitative Comparative Analysis.

Operating systems

- MacOs, Windows, Linux (mainly Ubuntu and derivatives)

Data work and scripting

- `R`, very good knowledge, including package development and publishing on `CRAN`
- `Python`, mostly data-wrangling and modeling libraries such as `numpy`, `pandas`, `sklearn`, some LLM work with `langchain`
- basic `SQL`
- `bash`
- rudimentary knowledge of `PowerShell`

Cloud / IaC

- `OpenStack`, basic `terraform`

Version control, CI/CD

- `git`, GitHub, GitHub Actions

Publishing

- `HTML`, `LaTex`, interactive reports and dashboards with `(R-)Shiny`

Office tools

- MS Office suite, LibreOffice

Languages

- Finnish, native speaker
- English, fluent
- Norwegian, good
- Swedish, fair
- Danish, fair reading comprehension

Writing

- Years of experience of writing academic prose, reports, and technical documentation.