Chris Sobczak

Statistician

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Languages: *English*, *Spanish* Website: sobczak.family

SKILLS & TECHNOLOGIES

Statistical Methods
High dimensional data analysis
Experimental design
Sample survey Design
Hypothesis testing
Analysis of Variance (ANOVA)
Geostatistics
Statistical omics
Bioinformatics
Change point estimation
Piecewise Regression

Modelling
Machine Learning
General Linear Models
Neural Networks
Ensembles
Time Series
Kriging
Genome Association
Linear Mixed Models

Software
R, rshiny, Rmd
LaTeX
python
POSIX sh
Linux, BSD, Docker
C++ and C
SQL, postgresql
GIS
curl, APIs, parsing
git
plink

Enterprise Tools
Super Computing, `ssh`, `slurm`
G-Suite (including APIs)
Google BigQuery
Google Cloud Run
Google Apps Script
Salesforce (including APIs)
Lean Six Sigma, Kaizen
Process Mapping and Optimization
Project Management
Financial Analysis

WORK EXPERIENCE

Simon Fraser University (SFU) Department of Statistics and Actuarial Science September 2025 - Present
Graduate Research & Teaching Assistant with elliottlab.ca *Burnaby, BC*

- Experiment design and analysis
- Statistical consulting and collaboration
- Genetics in medicine study
- Genome-wide association studies (GWAS)
- Data analysis in metabolomics and genomics
- HPC (with `ssh`, `slurm` and other unix tools)
- Bayesian networks
- Causal inference

Veolia North America (VNA) March 2024 - August 2025
Senior Performance Analyst *Milwaukee, WI*

- Was awarded the **Technical & Performance Excellence Award for Driving Operational Excellence** in recognition of outstanding contributions aligned with the company's *GreenUp* ambitions and business objectives (2024)
- Collected and systematically organized water flow data to produce ongoing predictions of useage of our new PFAS treatment system's filter media
- Used the water flow predictions to inform survival analysis on the filter media, accurately predicting necessary replacement date to make better informed business decisions
- Performed an in-depth assessment of the billing process and performance of the VNA water business to drive improvements
- Continue to product manage the Operational Performance Acceleration Tool (OPAL, a Salesforce application) of VNA to accelerate Operatioanl Excellence across each business line
- Develop and maitain dynamic dashboards displaying Operationl Excellence data in Google's LookerStudio
- Employed a Docker container in Google Cloud Run with R scripts to integrate and transform data from Salesforce, Smartsheet and Google Sheets to a central BigQuery database for use in various Business Intelligence tools
- Created standard operating procedures for PFAS treatment system management in the Regulated Utility business
- Built labor and sampling models for scaling PFAS treatment systems as demand grows

Veolia North America September 2022 - March 2024
Performance Analyst *Milwaukee, WI*

- Assisted the hazardous waste business in reducing their unbilled balance by $17 million USD
- Collaborated with our DB&T team to improve OPAL enabling centralized tracking of Operational Excellence initaitives and driving adoption in all four business units
- Assessed the state of our workforce in the water business including a wage gap analysis and operator licensing analysis driving improvement initiatives in compensation and employee development

Veolia North America July 2021 - September 2022
HR Performance Analyst *Milwaukee, WI*

- Project managed VNA Human Resource related workstreams for the Veolia and Suez merger
- Provided dynamic reporting and analysis of Human Resources related data such as turnover, hire rate and employee promoter score

Simon Fraser University (SFU) September 2018 - May 2021
Research Assistant *Burnaby, BC*

- As a Research Assistant in the SFU Psychology Department, conducted interviews, transcribed and analyzed research results
- Developed scripts to aggregate campaign finance data from the Federal Election Commission, opensecrets.org, followthemoney.org, and state campaign administration departments
- Assisted municipal water officials of the city of Chilliwack, BC in predicting water demand to reduce energy consumption required for pumping

Municipal Government of Sigchos May 2018 - August 2018
Municipal Events & Commerce Assistant *Sigchos, COT*

- Built connections with local university organizations to involve them in comunity events
- Mapped municipal points of interest for tourism marketing
- Managed the social media accounts for the tourism organization of Sigchos, COT

EDUCATION

Statistics Master of Science September 2025 - June 2027
Simon Fraser University *Burnaby, BC*

- Studying new methods in correlation and precision matrix estimation
- Applying new methods to omics data for the Canadian Longitudinal Study on Aging and Super-Seniors cohort
- Researching metabolomics and genomics through Bayesian networks
- Statistical Consulting
- Advanced Statistical Theory
- Collaborating with biologists to apply Bayesian hierarchical models to estimate global biodiversity trends
- Varsity Athlete

Statistics Bachelor of Science, Minor in Resource & Environment Management September 2017 - May 2021
Simon Fraser University *Burnaby, BC*

- Hypothesis Testing
- Analysis of Variance (ANOVA)
- Sampling and Experiment Design
- Statistical Modeling and Prediction
- Big Data
- Machine Learning and Neural Networks
- Time Series and Forecasting
- Environmental Law
- Environmental Science
- Environmental Modelling
- Urban Design
- Sustainable Development
- Varsity Athlete

PERSONAL PROJECTS

Data opensecrets, openfec, opendod, bls, eia
After university, I continued to develop tools of my own to track interesting activities of the government and economy. After my work study analyzing campaign finance data, I continued working on wrappers for government APIs, focusing on endpoints that interested me including specific funders, governemnt contracts, labor statistics, and energy data.

Self Hosting smtpd (email), httpd (website), xmpp (chat), wireguard (vpn)
I am passionate about free (as in freedom or liberty) open source software and enjoy tinkering on projects where I can entirely control the technology. One example, is in hosting my own email and xmpp server. While deploying these tools on an OpenBSD server I learned a lot about POSIX scripting, how networking works, dns and many other things.

Media openbsd (nas), sfeed (rss), minidlna (media server)
At home, in a similar way, I enjoy using free and open source software tools to automate things and limit the influence of "big tech" algorithms on what media I consume.

Tools sh (bash, dash, csh, other POSIX), vim, ssh, gnupg, git, kdenlive, audacity, ffmpeg
I enjoy getting better at using a variety of tools to complete the projects above, which have become useful in the workplace, writing dockerfiles and scripts, connecting to remote machines, encryption, versioning control, video and audio editting.