

# Zack van Allen, PhD, MBA

Researcher & Data Scientist

[vanallen.22@gmail.com](mailto:vanallen.22@gmail.com) | [GitHub](#) | [X](#) | [Google Scholar](#) | [zackvanallen.com](#)

## PROFESSIONAL SUMMARY

---

Experienced researcher proficient in all aspects of the research process, including experimental design, study implementation, [quantitative](#) and [qualitative](#) analysis, and producing comprehensive reports and presentations. Author of [20 peer-reviewed scientific papers](#) with over 1300 citations. Ten years of experience using [R / Python / SAS for data analysis, modeling, and visualization](#). Proven track record in managing budgets, projects, and teams to deliver high-quality, actionable insights.

## SKILLS

---

- **Programming:** R, Python, SAS
- **Quantitative Research & Machine Learning:** General linear model, mixed-effect models, network analysis, cluster analysis, meta-analysis, random forests, xgboost, neural networks.
- **Qualitative Research:** Interview guide development, data collection, thematic analysis
- **Technical Writing:** Seven first author peer-reviewed papers, coauthor of reports for Department of National Defence, the Public Health Agency of Canada, and Diabetes Action Canada.
- **Project Management:** Managed multi-hospital projects in healthcare sector with cross-functional teams; managed budgets, timelines, and third-party contracts.
- **Business Analytics & Strategy:** Strategic analysis, macro environmental trends, industry analysis, market segmentation, and SWOT analysis.

## PROFESSIONAL EXPERIENCE

---

**Data Scientist** [Mitacs-Banting Postdoc] | University of Ottawa, Health Science 2023-2024

- Deployed [machine learning](#) for prospective classification of functional dependence in elderly
- Applied [multi-level modelling](#) to uncover role of physical activity in stroke survivor recovery
- Analyzing fMRI and accelerometer data from UK Biobank study (ongoing)

**Research Associate** | Ottawa Hospital Research Institute 2023-2024

- Applied [cluster analysis](#) to identify behavioral profiles for targeted health interventions
- Analyzing theory-based predictors of plasma donation intention in national Canadian sample

**Research Coordinator** | Ottawa Hospital Research Institute 2018-2023

- Led multi-province project on [diabetic retinopathy screening](#) in minority groups
- Compared [machine learning](#) algorithms for predicting healthy aging and healthcare utilization
- Member of executive committee for a [multi-hospital study](#) on organ donation decision-making

**Research Assistant** | University of Ottawa, Dept of Innovation in Medical Education 2017-2018

- Developed stress inoculation training resources for medical students

**Research Assistant** | Dept of National Defence 2015-2017

- Co-authored reports on leadership profiles for high-ranking military positions

## EDUCATION

---

- **PhD**, Psychology, University of Ottawa 2019-2023
- **M.B.A.**, Carleton University 2017-2019
- **M.A.**, Psychology, Carleton University 2014-2016
- **B.A.**, Psychology, Carleton University 2009-2014