ANDREW BORGMAN

1610 Leonard St NE ◇ Grand Rapids, MI 49505
(989) · 506 · 0149 ◇ ndrwsbrgmn@gmail.com

EDUCATION

Grand Valley State University, Grand Rapids, MI *2011 - 2013*
M.S. in Biostatistics

Member of Mu Sigma Rho Statistics Honor Society
Overall GPA: 3.97

Aquinas College, Grand Rapids, MI *2007 - 2011*
B.S. in Mathematics
Minors in Physics & Accounting

President of Pi Mu Epsilon Mathematics Honor Society
Overall GPA: 3.98 (Summa Cum Laude)

EXPERIENCE

Van Andel Research Institute December 2013 - Present
Biostatistician II – Bioinformatics & Biostatistics Core *Grand Rapids, MI*

- Serve as the VARI's head statistician as part of the Bioinformatics & Biostatistics Core
- Research and developed tools for integrated analysis of multiple high-throughput genomic, transcriptomic and proteomic data sets
- Develop dynamic web applications that allow researchers to investigate high-dimensional datasets
- Create automated reporting systems for analyses using the R programming language
- Conceptualize and teach introductory computing and statistics seminars

Van Andel Research Institute April 2013 - December 2013
Biostatistician I – Bioinformatics & Biostatistics Core *Grand Rapids, MI*

- Performed statistical consulting for researchers at VARI and MSU College of Human Medicine
- Handled basic statistical inquiries; investigated and implemented advanced methodologies
- Conducted power analyses via exact methods or simulations
- Developed intuitive data visualizations to communicate experimental outcomes
- Applied machine learning algorithms to extract knowledge from high dimensional data sets
- Researched, implemented and compared pipelines for the analysis of NGS data
- Deployed and administered GitLab backed git version control system to improve project tracking and project reproducibility

Van Andel Research Institute December 2011 - April 2013
Statistical Analyst – Lab of Canine Genetics & Genomics *Grand Rapids, MI*

- Lead statistician in high-throughput genomics lab
- Designed pipelines for conducting genome-wide association studies (GWAS)
- Implemented population genetics analyses using high density SNP genotyping data
- Developed workflows for the analysis of whole-genome and whole-transcriptome next-generation sequencing data

Grand Valley State University August 2011 - April 2013
Graduate Assistant – School of Social Work *Grand Rapids, MI*

- Helped to integrate Chalk & Wire curriculum assessment tool for department evaluation
- Performed data aggregation and statistical analysis to show curricula met NASW standards
- Provided general technical support for students and faculty
- Presented paper on data-driven curriculum development at the Las Vegas National Social Science and Technology Conference

RESEARCH SUPPORT

Henry Ford Health System September 2013 - September 2014
Hermelin Brain Tumor Center

- VARI multi-institute collaboration with Henry Ford Health System, M.D. Anderson Cancer Center and George Mason University
- Major goal of this project is the development of analytical techniques for integrating information gleaned from multiple high-throughput omics assays to identify networks/pathways suggesting novel therapeutic targets, targets of existing drugs, and combinational strategies for glioblastoma treatment.

Grand Valley State University August 2012 - December 2012
Presidential Research Grant

- The goal of this project was to leverage high-performance computing technologies to clean and analyze a large data set from an experimental offshore LiDAR buoy stationed in Lake Michigan.

PUBLICATIONS

1. Neff MW, Beck JS, Koeman JM, Boguslawski E, Kefene L, Borgman A, et al. Partial deletion of the sulfate transporter SLC13A1 is associated with an osteochondrodysplasia in the miniature poodle breed. PloS one. 2012;7(12):e51917.

AWARDS & CERTIFICATES

- GVSU Intern of The Year (2011-2012)
- Outstanding Mathematics Senior Award (2011)
- Outstanding Physics Student of the Year (2010)
- SOA Exam P
- SOA Exam FM

TECHNICAL STRENGTHS

Programming Languages	R, Python, C++, C#
Web Development	HTML/HTML5, CSS, JS, Django web framework
Databases	MySQL, PostgeSQL, MongoDB (noSQL)
Linux / Other	BASH, Sed, AWK, LaTeX, git, GitLab
Bioinformatics Tools	GATK, EdgeR, DEseq, GSEA, PLINK