ALEXANDER WHITE

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EDUCATION

Indiana University, Indianapolis, IN *August 2018 - December 2022*
PhD: Biostatistics
Minor: Computation & Applied High-Dimensional Statistics
Department of Biostatistics and Health Data Science

Rose-Hulman Institute of Technology, Terre Haute, IN *August 2011 - February 2015*
BS: Physics
Minor: Mathematics

CARRIER OBJECTIVE

I am interested in developing and leading a team that uses statistical and machine learning approaches to solve complex problems.

RESEARCH INTERESTS

- Subspace clustering, low-rank detection
- High-dimensional analysis
- Computational statistics

TECHNICAL STRENGTHS

Programming Languages	R, Python, C++, SQL, SAS MATLAB, MUMPS, VBS
Software	Latex, Various IDEs, R Shiny, Linux, Crystal, MS Office
Certifications	SAS Certified Advanced Programmer for SAS 9

WORK EXPERIENCE

CliftonLarsonAllen LLP, Indianapolis, IN December 2022-Present
Data Science Manager

· Construct complex solutions that integrate data wrangling, visualization, and advanced modeling techniques into a seamless workflow using software development best practices in R/Python.
· Utilize APIs, web scraping, SQL/no-SQL databases, and development operations to create, deploy and maintain state-of-the-art statistical and machine learning solutions.
· Create novel, theoretically driven, statistical/machine learning methods to solve unique challenges.
· Develop and lead data science team.

CliftonLarsonAllen LLP, Indianapolis, IN January 2020-December 2022
Data Science Intern

· Propose dynamic pricing system to improve firm work-load balance and estimate/optimize economic parameters (e.g. demand, optimal price points, etc.).
· Apply and automate modern forecasting methods to project the growth of the company by industry, service, and location.

- Implement temporal itemset mining methods to identify profitable, high-impact service combinations to market to existing clients.
- Build programs to automatically glean meaningful information from internal data such as client retention rates by industry, service, and location.

Cornerstone Controls Inc., Indianapolis, IN June 2016-August 2018
Project Engineer

- Support and implement Process Analytical Technology (PAT) systems.
- Created automated processes and reports through stored procedures and complex queries utilizing SQL to facilitate custom functionality and reporting needs of customers.
- Develop, implement and support Manufacturing Execution Systems (MES).

Epic Systems Co., Madison, WI March 2015-June 2016
Technical Services Engineer

- Support, develop & maintain electronic medical record software.
- Work with several customers to solve complex software issues.
- Write new functionality to meet customers needs.
- Develop complex & meaningful reports from relational databases.

Idaho State University, Pocatello, ID May 2014-August 2014
Research Assistant

- Multivariate calibration with applications in data modeling.
- Developed algorithms to automatically select models in multiple tuning parameter systems.
- Applied algorithms to predict the active ingredient of pharmaceutical tablets using near infrared (NIR) spectra.

PUBLICATIONS

Tencate, Alister J., John H. Kalivas, and **Alexander J. White**. "Fusion strategies for selecting multiple tuning parameters for multivariate calibration and other penalty based processes: A model updating application for pharmaceutical analysis." Analytica chimica acta 921 (2016):28-37.

Folberth, J., Casimir, S., Dou, Y., Evans, D., Foulkes, T., Haenftling, M., Kuhn, P., **White, A**. and Ditteon, R., 2012. Asteroid Lightcurve Analysis at the Oakley Southern Sky Observatory: 2011July-September. Minor Planet Bulletin, 39, pp.51-55.

In Preparation

White, A., Zhao, Y., Zhang, C., Cao, S. (in preparation), Detecting the latent common space between pairs of high dimensional datasets.

White, A., Zhang, C., Cao, S. (in preparation), Clustering spatial transcriptomics data using multinomial model based dimension reduction.

AWARDS

Undergraduate Student Grant ($1,500 Travel Grant), Society for Applied Spectroscopy (2014)

TEACHING

Introduction to Biostatistics (IUPUI, PBHL-B300), Spring 2018. Primary instructor.

Biostatistics for Informatics (IUPUI, PBHL-B302), Fall & Spring 2019-2022 (6 semesters). Primary instructor.

PEER-REVIEW ACTIVITY

Served as referee for:

Biostatistics & Epidemiology

IEEE Bioinformatics and Biomedicine

PLOS ONE

PROFESSIONAL DEVELOPMENT AND MEMBERSHIPS

Chapter Officer: American Statistical Association

Co-President: Biostatistics Student Association

CONFERENCE POSTERS

The Great Scientific Exchange (SciX), October 2014, Reno, NV, *Development of Sum of Ranking Differences (SRD) for Automatic Selection of Multiple Tuning Parameters in Spectroscopic Multivariate Calibration Maintenance.*