Bryan Prazen

Data Scientist

Seattle, WA - Email me on Indeed: indeed.com/r/Bryan-Prazen/8857db9b8aca05f9

• Data Scientist with a PhD in analytical chemistry.
• Accomplished technical leader with extensive experience in machine learning, statistical analysis, experimental design, grant writing, cloud based data analysis systems, chemical sensor development, laboratory instrumentation and proteomics.
Authorized to work in the US for any employer

WORK EXPERIENCE

Director of Data Science

Sqord - Seattle, WA - August 2016 to Present

Responsibilities: Leading collaborations with physical activity and pediatric health researchers. Developing strategies and data analysis methods for product insights and internal and external data reporting. Developing connections between the Sqord sensor signals and an improvement in human health that demonstrated a return on investment.
Significant Accomplishments: Development of logistic regression, random forest and Cox's proportional hazard models of user retention and physical activity levels using SQL and python. These models were used to guide product development and convey the company's value to the investor community. Development of a multi-segment linear model to calibrate data from Sqord's accelerometer based activity tracker to the physical activity standard, minutes of Moderate to Vigorous Physical Activity (MVPA), in collaboration with an academic researcher. Development of a method to measure increases in physical activity resulting from the Sqord program that was based on comparison of days with and without player engagement.

Senior Bioinformatics Scientist

Integrated Diagnostics - Seattle, WA - January 2015 to September 2015

Responsibilities: Designing experiments to support, test and verify Xpresys(TM) Lung, a commercially available proteomics based lung cancer diagnostic. Developing, testing and refining of machine learning models using SQL, Matlab and R. Statistical analysis. Presenting bioinformatic results and authoring study designs and reports for regulatory documentation.
Major Accomplishments: Led cross-functional collaborations between bioinformatics, information technology, laboratory operations and regulatory departments to support the Xpresys(TM) Lung test.

Manager, Data Analysis and Software Development

MarqMetrix - Seattle, WA - 2013 to 2015

Responsibilities: Managing the development of a novel wireless chemical analyzer system that communicates with cloud based servers. Developing machine learning algorithms for the interpretation of big data using Python and Matlab. Designing, developing and maintaining data analysis servers hosted on AWS for the delivery of data
analysis services. Servers were developed using EC2, S3, Ubuntu, Python, SQL, JavaScript and Apache.
Major Accomplishments: Led development of a wireless industrial process sensor system with multiple chemical and physical sensors and cloud based control, storage, analysis and display.

Chief Scientist and Co-founder

Insilicos LLC - Seattle, WA - 2002 to 2013

Responsibilities: Setting scientific course for Insilicos. Writing grants. Managing bioinformatics, proteomics and clinical research collaborations. Managing development of cloud based molecular modeling service known as Rosetta@cloud. Developing machine learning and bioinformatics techniques for proteomics, clinical and other multivariate measurements in Perl, R, Matlab, Python and SQL. Developing MALDI and MRM MS/MS based quantitative proteomics analysis methods. Proteomics and molecular modeling software product development, documentation, marketing and support. IP development. Budgeting, resource planning, and managing cash flow. General company management.
Major Accomplishments: Cofounder of a diagnostic development and bioinformatics software company that launched 2 products. PI on NIH phase I and phase II SBIRs entitled "Pattern Recognition Mass Spectrometry in the Diagnosis of Heart Disease" that brought together a team of physicians, analytical chemists and biostatisticians to design experiments, collect human plasma samples and test a proteomic diagnostic platform. Co-writer and investigator on multiple NIH and NSF small business grants that resulted in over $4M in research funds.

Visiting Scientist

University Of Washington - Seattle, WA - 2007 to 2008

Responsibilities: Automated biological sample handler development.
Major Accomplishments: Developed a robotic system to digest protein, and spot MALDI plates for serum samples.

Research Scientist

Dept. of Chemistry - 1999 to 2003

Responsibilities: Management of graduate students and research laboratory. Guest lecturer for undergraduate and graduate chemistry courses.
Major Accomplishments: Author on 24 peer reviewed publications.

Visiting Scientist

Dept. of Chemistry - Stockholm - 2001 to 2001

Responsibilities: Analytical instrument development.
Major Accomplishments: Developed a dynamic surface tension detection instrument for flowing liquids and characterized the physics of the diffusion-controlled adsorption at the air/liquid interface for the instrument.

Visiting Scientist

Dept. of Chemistry - 2000 to 2000

Responsibilities: Analytical instrument development. Instructing and aiding graduate students research.
Major Accomplishments: Transferred dynamic surface tension technology from UW to Chiang Mai. This work led to a research collaboration that lasted for years.

Research Chemist

Dupont Experimental Station - Wilmington, DE - 1998 to 1999

Responsibilities: Management of HPLC/MS method development laboratory.

EDUCATION

Data Science

Galvanize - Seattle, WA
2016 to 2016

Doctor of Philosophy in Analytical Chemistry

University of Washington - Seattle, WA
1998

Bachelor of Science in Chemistry
University of Illinois at Chicago - Chicago, IL
1993

SKILLS

Python, SQL, Matlab, R, Perl, Javascript, AWS, Git, Multivariate Regression, Classification, Ensemble Techniques, Clustering, Forecasting, Natural Language Processing, Recommendation Systems, Power Calculations, A/B Testing, Hypothesis Testing, Bayesian Inference (10+ years)

PATENTS

Methods and compositions for diagnosis or prognosis of cardiovascular disease. (#8,241,861)
August 2012

Methods and compositions for diagnosis or prognosis of cardiovascular disease. (#8,460,889)
June 2013