Samantha Buck, MclinEpi, MLS

Bioinformatics Analyst | Data Scientist

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Profile Dedicated, focused, and enthusiastic math nerd with clinical molecular diagnostics, data visualization, and quality assurance experience who loves to solve challenging problems. Excels at prioritizing and completing tasks in high pressure, deadline-driven environments. Exceptional interpersonal skills that foster strong client relationships, inspire employees, and resolve conflict promptly. A self-motivated leader who works well under pressure, learns thoroughly and quickly in a team and individual environment, and adapts easily to new technologies.

Skills

Data Science

Mathematician, Statistics, Machine Learning, Regression Models, Python, SQL, Apache Spark

Technical/Science

Next Gen Sequencing, Genetics, Molecular Assays, PCR, Infectious Diseases, Research + Protocols

Software + Agile

Product Owner, Scrum Master, Rally, JIRA, SAFe, Requirements Analysis, Greenfield Development

Leadership

Written and Verbal Communication, Initiative, Highly Organized, Quality, Project + Time Management

Education

Galvanize Data Science Immersive

Galvanize Inc., Denver, CO, 2020

Masters in Clinical Epidemiology

University of Newcastle, NSW, Australia, 2017

Medical Laboratory Science Program

Denver Health School of MLS, Denver, CO, 2107 ASCLS Region VIII Student Representative ASCLS Key to the Future Award

B.S. Biochemistry & Microbiology Molecular Biology Minor

Colorado State University, Fort Collins, CO, 2014 Biochemistry Honors Scholar + Cum Laude Honors **Thesis:** The role of tissue transglutaminase and auto-antibodies in Celiac Disease: New therapeutic approaches.

Professional Experience

Point of Care Coordinator · Medical Laboratory Scientist

Denver Health Medical Center, Denver, CO

2017 - 2020

- Supervised a team of Point of Care Specialists responsible for laboratory testing at the patient bedside point of care.
- Performed statistical and cost benefit analysis on laboratory tests to determine new testing platforms to bring onboard.
- Oversaw 22 primary care and school-based healthcare clinics and laboratories across the Denver Metro.
- As project manager, successfully developed, designed, and built 8 new primary care and urgent care clinics by facilitating meetings and inter-departmental coordination to ensure CLIA and FDA standards were met.
- Managed ongoing training and competency for 2500+ healthcare providers performing laboratory testing.
- Executive team liaison for Joint Commission, FDA, CAP, and CLIA audits and inspections.
- Analyzed and implemented new molecular diagnostic instruments and assays by completing the validation studies, writing the standard operating procedures, and training employees.

Product Owner + Software Engineer I

Catholic Health Initiatives (CHI), Englewood, CO

2015 - 2016

- As Product Owner for 6 web and mobile consumer facing applications, maintained and curated robust product backlog interfacing with healthcare providers, consumers, third party integrators, and other stakeholders.
- As Scrum Master, effectively led a team of developers, architects, and QA engineers working on the delivery platform for CHI's Digital Transformation.
- Optimized CHI's Agile processes for Greenfield software development.
- Utilized quality assurance skills to ensure high quality products and applications were delivered on time to clients.

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Professional Experience Cont.

Quality Assurance Analyst

Corptax, Inc. Chicago, IL (Remote)

2014

- Performed productivity analysis of quality assurance processes and led the QA team to improve overall efficiency.
- Presented findings to the executive team periodically.

Guest Service Team Lead

Target, Lone Tree & Fort Collins, CO

2013 - 2015

- Successfully supervised, motivated, and led a team of 30 customer-facing employees.
- Implemented new food safety protocols and developed programs for sustainable food waste disposal.
- Drove sales and customer loyalty program membership while initiating new processes to improve guest experience.

Laboratory Assistant

Luger Lab, Colorado State University, Fort Collins, CO

2012

Assisted post-doctoral students with their research on histones and proteins associated with histones via protein purification, DNA purification for sequencing, and gene mutation experiments.

Of Note

Laboratory Representative, Diversity Inclusion Council, Denver Health, 2019-2020:

Executive team liaison who worked with representatives from all departments across Denver Health to discuss how to create a more diverse and inclusive workplace, workforce, and hospital for our patients and employees.

President of College Council, CSU, 2012-2014:

- Assisted CSU President, Tony Frank, and College of Natural Sciences Dean, Jan Nerger, in obtaining funding and support for new Chemistry & Biology buildings which opened Fall 2017.
- Representing student constituents, approved budgets and distributed funds for all departments in the college.

Recent Projects

COVID-19 Analysis: GitHub Link

Analyzed and performed hypothesis testing on COVID-19 infection and death data using Pandas, NumPy, MatPlotLib, and a public health background to determine if the United States mishandled the pandemic compared to three other countries.

Ride Share Retention: GitHub Link

Determined how to retain active ride share users by using a supervised Random Forest model to analyze feature importance and a Logistic Regression model to inspect feature coefficients.

Transit Investment: GitHub Link

Utilized Pandas, data visualization techniques, and transportation experience to ascertain which country would have the highest investment return with an improvement in transit infrastructure.

Certifications

Medical Laboratory Scientist (American Society for Clinical Pathology)

Cert. #261879, 11/2017, Recertified 11/2020

Organizations

American Society for Clinical Laboratory Science (ASCLS)

Student + Professional Member since 2017 ASCLS-Colorado Student + New Professional Rep ASCLS Region VII Student Rep

American Association for the Advancement of Science (AAAS)

Professional Member since 2012

American Chemical Society (ACS)

Student + Professional Member since 2010