Dr Elsa (Elizabeth) Ekevall

Frankfurt Area, Germany
elsaekevall.github.io/website

elizabethekevall@gmail.com
github.com/eekevall

+49 176 55200182
linkedin.com/in/eekevall

Versatile and self-motivated data analyst with a proven ability to learn and apply new technologies. Excellent communication skills and 15+ years of demonstrating strong analytical and problem-solving skills in high-level individual and collaborative research in academia. Solution-focused, persistent and experienced in data processing, analysis and visualisation using Excel, Python, SQL and Tableau.

CORE COMPETENCIES

TECHNICAL SKILLS

Data Processing and Analysis
Data Visualisation
Data Mining and Data Ethics
Machine Learning
Mathematics and Statistics

TOOLS

- Tableau
- Python
- Microsoft Excel
- SQL

TRANSFERABLE SKILLS

Problem Solving
Curiosity and Creativity
Storytelling
Presentations and Reports
Critical and Lateral Thinking
Flexibility and Resilience
Project Management
Interpersonal and Teamwork

EDUCATION

CAREER FOUNDRY

November 2022
Certificate in Data Analytics
Project-based curriculum designed to cultivate the mindset of a data analyst through hands-on application of the processes and tools that data professionals use every day.

COURSERA

March 2021 - May 2021
Machine Learning Online Course by Andrew Ng, Stanford University
A broad introduction to machine learning, data mining, and statistical pattern recognition and how to apply the learning algorithms.

IMPERIAL COLLEGE | BUSINESS SCHOOL
IMPERIAL COLLEGE LONDON

February 2021
Imperial Business Analytics: From Data to Decisions Certificate
Using descriptive, predictive and prescriptive analytics to identify, analyze and solve critical business problems.

DATA ANALYSIS PROJECTS

UK Household Food Shopping · *(view in GitHub)*

- Advanced analytical analysis in Python examining UK food shopping habits, utilising machine learning regression and clustering analyses.
- Formulated a hypothesis, and conducted time series and geospatial analysis.
- Designed an interactive dashboard for the general public.

Instacart · *(view in GitHub)*

- Exploratory prescriptive data analysis in Python to derive insights and suggest strategies for an online grocery store.
- Merged many data sets into one with over 32 million records and depicted the population flow.
- Derived new variables and created flags for customer profiling, and answered business questions.

Rockbuster · *(view in GitHub)*

- Exploratory descriptive data analysis, to answer business questions for a fictitious video rental company using SQL.
- Wrote SQL queries, subqueries and table joins, including common table expressions, and discovered discrepancies in the database.
- Provided strategic business advice on pricing and inventory.

Planning for Influenza Season · *(view in GitHub)*

- A predictive analysis of influenza seasonal trends using Excel and Tableau to forecast hospital staffing ratios.
- Used VLOOKUP and key columns to map and integrate data sets in Excel, and formulated and tested a research hypothesis.
- Proposed a plan based on states with high-risk populations (over 65 years) and their hospital staffing levels to population ratios.

Imperial Business Analytics Capstone Project · *(view in GitHub)*

- A finance optimisation problem to investigate the feasibility of a car manufacturing company producing mechanical ventilators while maximising profits.
- Defined the decision variables, objective function and constraints, then solved the linear problem in Google Or-Tool and AMPL.
- Made recommendations based on the optimal solution and feasibility.

PROFESSIONAL WORKING EXPERIENCE

Planned Sabbatical and Career Change · February 2018 - December 2022

- Prioritised tasks and managed stressful situations while gaining experience in machine learning and data analysis, raising a family and moving country.

Freelance Project Manager | Science Communicator · March 2016 - February 2018

- Prepared reports and statistics for the main client, and created content for a monthly newsletter, website and social media channels.

Relocated to Canada · April 2014 – March 2016

- Volunteered as an Outdoor Teaching Assistant communicating science to children and obtained my PMI Project Management Certification.

EDUCATION

UNIVERSITY OF STRATHCLYDE
GLASGOW, SCOTLAND

November 2000
Doctor of Philosophy in Research
in the Bioengineering Unit.

July 1994
Bachelor of Engineering in
Chemical Engineering with 1st
Class Honours.

PROFESSIONAL WORKING EXPERIENCE

Doctoral Training Partnership Coordinator
November 2012 – April 2014

Medicine, Veterinary and Life Sciences, University of Glasgow, Scotland.
- Set up and coordinated a new internship scheme for PhD Students.
- Mentored students obtaining their own placements and linked with organisations to secure internships.
- Achieved the key milestones and deliverables putting monitoring systems in place and all students successfully securing an internship.

Research Administrator
September 2011 – 2012

Institute of Health and Wellbeing, University of Glasgow, Scotland.
- Coordinated the day-to-day evaluation activity of two citywide research projects across NHS Greater Glasgow and Clyde regions.
- Ensured data collected was accurate, processed and stored according to data protection guidelines.
- Prepared reports based on the data for internal and external use.

Consultancy
January 2011 – March 2012

Learning Teaching Scotland, Scotland.   *(view on the STEM Central website)*
- Project managed a team of six collaboratively developing lesson ideas, interactive tools and a video explaining biomaterials, biomimicry and biomechanics.

Project Manager and Research Coordinator
April 2010 – October 2011

STEM-ED Scotland, University of Glasgow, Scotland.   *(view on the STEM-Ed website)*
- Collaborated with several partner organisations and stakeholders, including the Scottish Government, to identify pathways that develop key concepts and skills.
- Published the findings and presented the work at conferences and seminars

Consultancy
September 2008 – July 2009

NESTA, England
- Managed the Planet Super Powers! project for NESTA.
- Co-wrote a scientific comic strip with characters designed by children, created content and activities for the website, and helped create a computer game.

Engineering Education Development Officer
September 2006 – March 2010

Faculty of Education, University of Glasgow, Scotland.
- Worked as part of a research team to influence educational policy and embed engineering in the school curriculum.
- Sourced, collected and analysed the data and carried out the research analysis.
- Marketed the project, published the findings and presented the work at conferences and seminars.

Project Manager
July 2006 – July 2007

Bioengineering Unit, University of Strathclyde, Scotland.
- Initiated and managed a novel outreach program to promote bioengineering.
- Scientists and an artist worked with school children to create superheroes with superpowers inspired by biomedical technologies.
- Conducted the internal evaluation, and published a resource pack and project report.

Freelance Project Manager | Science Communicator
August 2005 – June 2006

- The main contract advising the Scottish Executive Education Department and Careers Scotland on the Science Small Grants Scheme management for NESTA.
- Prepared regular reports, produced case studies and guided schools.

Director, Brighter Exciting Science & Technology
December 2003 – March 2006

- Set up a company to support education by providing creative activities.
- Designed and delivered workshops, and developed resources.

Research Associate
May 2000 – May 2004

School of Textiles, Heriot-Watt University, Galashiels, Scotland.
- Conducted research into textiles for tissue engineering.
- Published the findings and presented the work at conferences and seminars.