Elaine Zhao

DATA SCIENTIST

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Singapore Citizen

github.com/zzeniale/portfolio

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EDUCATION

Data Science Immersive
General Assembly, Singapore
2019

BA Biological Sciences
Oxford University, United Kingdom
2012 – 2015

Introduction to Statistical Learning
Stanford Lagunita (Online)
2019

Data Scientist with Python Track
DataCamp (Online)
AISG AI for Industry Programme
2019

Developing Applications with Google Cloud
Coursera (Online)
2021

SKILLS

Python
Machine learning
SQL
Data visualisation
Scientific research and writing
Statistical analysis
Experimental design
Excel VBA
ArcGIS
Adobe Photoshop
Adobe Illustrator

PROFESSIONAL PROFILE

Elaine is a data scientist at a food-tech start-up, using data science to develop proprietary technologies for food reformulation. Having complete 4 independent end-to-end projects, she is skilled in methodically breaking down business needs and adapting data science methods into solutions specific to the needs of the food industry. Originally trained in biology, she also possesses a strong scientific background and understanding of experimental design components.

EXPERIENCE

Data Scientist

Hoow Foods | Singapore | Jan 2020 - Present

- Testing and building machine learning solutions to model key processes involved in the company's food reformulation technology, with experience in supervised learning, optimisation, community detection, and text classification.
- Deploying productionised models as APIs and simple user interfaces, using Flask, Kivy, and Dash.
- Gathering, scraping, and cleaning large sets of raw data.
- Implemented GitHub and good coding and collaboration practices in the data team.
- Presenting and interpreting model findings according to business needs at weekly internal presentations.
- Conducted laboratory experiments in accordance with GLP and GDP as part of a reformulation project for a major client in the food industry.
- Working with laboratory team to conduct experiments to evaluate machine learning algorithms.
- Supervised a data analyst in carrying out his own projects.

Environmental Consultant (Marine Biology)

DHI Water & Environment | Singapore | Sep 2015 - Jul 2019

- Monitored the environmental impact of client developments, through carrying out primary data collection and writing audit reports for clients such as NParks, HDB, and SDC.
- Improved workflow efficiency by ~90 % using VBA and Python; automated and streamlined manual data management and data analysis techniques.
- Created visualisations of survey data using ArcGIS to enhance presentation of findings in reports.
- Managed geodatabase containing over 20 sub-categories in ArcCatalog, and created new shapefiles to enhance existing database according to business needs.
- Successfully led over 15 field surveys by obtaining permits, coordinating manpower, and arranging logistics.

Research Intern

NUS Experimental Marine Ecology Laboratory | Mar – Aug 2012

- Co-authored the research paper "Environment-induced colour changes in the massive corals *Dipsastraea speciosa* and *Diploastrea heliopora*" with NUS Associate Professor Peter Alan Todd and Professor Chou Loke Ming, published in the journal Nature in Singapore.
- Designed publicity material for the Giant Clam Conservation Project using Adobe Illustrator and Adobe Photoshop.