



Katherine Munro

DATA SCIENTIST

Links

[linkedin.com/in/katherine-munro](https://www.linkedin.com/in/katherine-munro)

twitter.com/KatherineAMunro

Skills

Programming Languages: Python, SQL, LookML

Libraries: Pandas, Numpy, Scikit Learn, Plotly, Matplotlib, Seaborn, Keras, Tensorflow

Tech Stack: PyCharm, Jupyter, Kibana, Looker, Streamlit, Google Cloud, Google Colab, Git, Docker, Team City

Collaboration: Jira, Aha, Confluence, Office Suite; Experience in Kanban and Scrum

Languages

English

German

French

Hobbies

Hiking, Skiing, Photography, Travel, Cooking, Sport

Profile

Data Scientist specialising in research and insights generation, Machine Learning and Ops, Natural Language Processing, teaching and public speaking.

Core Competencies

- Developing data and machine-learning solutions, from idea to deployment
- Operating predictive modelling systems and finding ways to improve them
- Creating data-driven insights to suit the needs of various stakeholders
- Teaching, presenting and team leading for diverse audiences and teams
- Delivering exceptional customer service while overachieving on sales targets
- Running volunteer organisations aiming to increase diversity in tech

Employment History

Data Scientist, Smarter Ecommerce, AUT

DECEMBER 2019 – PRESENT

- **Generating insights:** created dashboards for technical and general audiences using Looker, Kibana, Streamlit and Plotly
- **Data-driven research:** investigated the impact of changing text in shopping ads, using Natural Language Processing and AB Testing
- **Machine learning and modelling:** responsible for the operation and improvement of thousands of predictive models trained and applied daily
- **Processing 'big', cloud-based data:** built a pipeline to read and write data from Google Cloud and display it in Looker, using SQL and LookML
- **Communication of technical concepts:** I represent the data science chapter to our product and client teams, and help promote our company's data science expertise to an outside audience

Thesis Student, Fraunhofer Institute for Integrated Circuits, DE

APRIL 2019 – DECEMBER 2019

- **Flexibility and can-do approach:** working in a largely unsupervised manner, I took on a complex masters thesis on a new (for me) topic and tech stack
- **Thesis aim:** Compare the properties of different word embeddings by feeding them to a sequence labelling model for Natural Language Understanding
- Gained experience working with statistical ML models, neural networks and pre-trained word embeddings using Python, SciKit Learn and Tensorflow

Intern, Research and Development, Daimler AG, DE

OCTOBER 2018 – APRIL 2019

- **Processing structured and unstructured data:** transcribed recorded interviews to provide the necessary structure for applying machine learning algorithms
- **Pragmatic problem solving:** synthesised the distributed work of previous interns into a solid experiment pipeline for classifying spoken language data (see "Towards Situation-Adaptive In-Vehicle Voice Output", Stier et al, 2020)

English Lecturer and ESL Teacher, Universität Tübingen/Educom GmbH, DE

JANUARY 2017 – JUNE 2019

- **Communication skills:** lectured academic English at Universität Tübingen and taught adult English classes for Educom, using self-designed course materials

Team Leader, Customer Service Manager, Commonwealth Bank, AUS

SEPTEMBER 2008 – OCTOBER 2016

- **Customer service:** worked for an online banking customer helpline
- **Interpersonal skills:** coached and lead a telemarketing sales team

Extra-curricular activities

Trainer, LinkedIn Learning

MARCH 2021 – PRESENT

- Devised and presented courses (in German) on Customer Lifetime Value prediction and Natural Language Processing in Python

Author, Editor, Writer

DECEMBER 2019 – PRESENT

- Co-wrote and edited “The Handbook of Data Science and AI” (Hanser, 2022) and drove the resulting sales campaign
- I also blog about data science, both privately and for work

Education Lead, Women in AI Upper Austria

JANUARY 2020 – PRESENT

- Organised community events and a startup accelerator program, aiming to increase diversity in AI and thereby make tech better for all

Coding Mentor, Female Coders

JANUARY 2020 – PRESENT

- Helped organise free coding sessions and hackathons for women

Public Speaker and Moderator

DECEMBER 2019 – PRESENT

- Moderated TedX Innsbruck, multiple Women in AI events and our Global Summit 2020, and the AI Austria Student Competition, 2022
- Appeared on diverse podcasts and webinars and lectured on Customer Lifetime Value prediction at PyData Yerevan, Armenia

Education

MA, Computational Linguistics, Universität Tübingen, DE

SEPTEMBER 2018 – MARCH 2020

BA Linguistics, English, University of Newcastle, AUS

MARCH 2014 – OCTOBER 2016

References

References available upon request

Selected Work Examples

- **Textbook**, The Handbook of Data Science and AI (Hanser 2022): <https://tinyurl.com/5d3pwwky>
- **Trainer Profile** at LinkedIn Learning, including my courses on Natural Language Processing (NLP) and data science in marketing: <https://tinyurl.com/2vc2wj6a>
- **Interview** on the Applied AI Podcast discussing retail applications of NLP: <https://tinyurl.com/2p8p6y8x>
- **Blog post** on AI-driven personalised marketing: <https://tinyurl.com/c8prmw8h>
- **Lecture** on CLV prediction at PyData Yerevan: <https://tinyurl.com/2p8wbdnw>
- **Webinar** on Artificial Intelligence and Natural Language Processing in E-Commerce: <https://tinyurl.com/y2u8bhnj>
- **Research paper** from my internship at Daimler AG: Towards Situation-Adaptive In-Vehicle Voice Output: <https://dl.acm.org/doi/10.1145/3405755.3406127>