

# Christiaan Swart

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## SKILLS

### TECHNICAL SKILLS

Python • NLP • Pytorch  
scikit-learn • spacy • Airflow  
Analytics • Deep Learning  
Ontologies • AWS (no)SQL  
Feature engineering • Scraping

### PUBLIC SPEAKING

**2022/05/10 Crunch Conference**

Workshop on distant supervision in NLP

**2022/08/19 Dataset Creation and Curation podcast at DataTalks.club**

< Podcast video link >

**2019/06/20 Beam Summit Europe**

Large scale Natural Language Processing of biomedical literature < video link >

**2018/10/15 Minds Mastering Machines conference**

Clustering and classification when to use which technique < video link >

**2018 AI & Gender Club meetup**

Natural Language Processing introduction, a series of 3 talks

## EDUCATION

### UNIVERSITY OF EDINBURGH

BSC ARTIFICIAL INTELLIGENCE & COMPUTER SCIENCE HONS 2.1  
September 2012 - June 2016  
Edinburgh, UK

### HONOURS PROJECT

WeCare

WeCare is a care coordination platform, providing a digital interface to individual patient centred social care process. WeCare was showcased by the Clinton Global Initiative University Network (CGI UN) in a social enterprise conference at UC Berkeley in April 2016.

### AWARDS

**2015 Google prize for System Design Project**

**2015 JacobsHack 2nd prize**

**2015 Smart Data Hack 1st prize**

**2014 Duke of Edinburgh Award**

## EXPERIENCE

### COMTURA | COFOUNDER AND HEAD OF MACHINE LEARNING

May 2021 - Present | Nuremberg, Germany

- Managed 2 direct ML reports, wearing many hats as a cofounder
- Productionised BERTopic topic modelling to identify coherent sales topics from sales conversations
- Architected serverless QA and summarisation deployments to reduce Kubernetes RAM pressure
- Created proof of concept sales entity extraction system using spacy NER and dependency parse
- Implemented Hubspot CRM integration modelling Hubspot objects and persisting Hubspot data with internal models
- Created and executed marketing plan with articles, webinars - coordinating marketing and CEO

### HEALX | NATURAL LANGUAGE PROCESSING ENGINEER

February 2019 - March 2021 | London, UK

- NLP lead on large scale biomedical NER extraction & NLP pipeline processing 30 million documents regularly with Dataflow
- Delivered 2x speed up on entity linking using ANN vector lookup
- Improved entity linking by 17% using coreference resolution model

### AGRIBOT | COMPUTER VISION ENGINEER (CONTRACT)

May 2019 - December 2020 | London, UK

- Develop photograph based crop disease classifier
- Benchmark optimal computer vision models for fast inference

### RESOLVING LTD | DATA SCIENTIST

August 2017 - February 2019 | London, UK

- Created reproducible machine learning products in the complaint space
- Data Scientist #1 building out data science team
- 10x reduction in complaint classification data requirements with transfer learning
- Pitch and develop Airflow pipeline to build training data, monitor model drift, and data quality
- Create timeseries and text based churn model from complaint data

### MARG UK LTD | NATURAL LANGUAGE PROCESSING ENGINEER

August 2016 - August 2017 | London, UK

- Delivered email and chat analytics to product team based on mining available data
- Built online data processing pipeline exposed with Flask web service to deliver 25% better accuracy and 4x speedup for document classification