

SHARN-KONET REITSMA

 sharnkonet.reitsma@gmail.com

 0211789486

 [linkedin.com/in/sharn-konet-reitsma](https://www.linkedin.com/in/sharn-konet-reitsma)

 github.com/sharn-konet

OBJECTIVE

Apply and develop my skills in data modelling and machine learning to complex problems through a graduate role with an established company.

SKILLS

- Experienced with programming in Python, R, MATLAB, Julia, and C++.
- Understanding of data analysis and optimisation theory.
- Competency with data science practices and a variety of machine learning techniques.

EDUCATION

Bachelor of Engineering (Honours) | Engineering Science




2018 - present

The University of Auckland

Studying the implementation of mathematical models and advanced computing to solve complex problems, with a focus in data analytics and optimisation.

Overall Grade Point Average: 8.96/9.00

Awards:

- 2020  Certificate of Distinction in Data Science Practice (STATS 369)
Dean's Honours list for Part III Engineering Science
- 2019  AUEA Ardmore Fund Undergraduate Scholarship
First in Course Award for ENGSCI 255 (Operations Research)
First in Course Award for MECHENG 211 (Thermofluids)
Dean's Honours list for Part II Engineering Science
- 2018  Dean's Honours list for Part I Engineering

INTERNSHIP EXPERIENCE

AI Software Developer

Nov 2020 - Feb 2021

Spark 64 Limited

- Developed computer vision solutions for data enrichment and audio event detection.
- Worked with PyTorch and TensorFlow deep learning frameworks in Python.
- Visualised geospatial data to recommend a suitable elevation API.
- Made use of cloud computing platforms such as Azure, GCP, and IBM Watson.

Data Scientist

Dec 2019 - Mar 2020

Harmonic Analytics Ltd.

- Developed overflow prediction and fault recognition algorithms for Watercare.
- Created a computer vision proof of concept in Python
- Used SQL to interact with Redshift databases.

WORK EXPERIENCE

Research Assistant

Sep 2020 – present

The University of Auckland

Developing a journal article regarding the application of signal processing and computer vision to satellite imagery.

- Worked with ensemble models, neural networks, and Google Cloud resources.
- Significant work with academic literature and LaTeX
- Debugging of a complex codebase in Python.

Teaching Assistant

Jul 2020 – Nov 2020

The University of Auckland

In-person tutoring for first-year Engineering programming paper ENGSCI 131. The course used MATLAB and C to teach functional programming.

- Provided understandable and comprehensive feedback for students.
- Interpreted and debugged code quickly.

PERSONAL PROJECTS



Messenger Analysis

Uses: Python

Sep 2019 – present



Video Demonstration

Interactive analytics dashboard for Facebook Messenger data. Developed to introduce casual audiences to the appeal of data analytics.

- Developed my ability to work with unconventional data sources (*HTML, web-scraping*).
- Shows familiarity with common plotting libraries and API frameworks (*Bokeh, Plotly, Flask*).



Flow Field

Uses: Python, C++

Dec 2020 – present



Video Demonstration

Visualising 3D flow of particles moving through ordinary differential equations. Involves application of modern numerical techniques in solving mathematical models

- Implemented custom numerical solver to efficiently solve large numbers of equations. (*NumPy*)
- Porting the project to use OpenGL for real-time data visualisation on GPU hardware. (*VisPy*).

HOBBIES AND INTERESTS



Filmmaking

May 2013 – present

As a hobby I like to develop ideas and scripts for movies, and do some work behind the camera. My current focus is on a TV series which I'm working on with a group of friends called "Please Don't Break Anything", which has recently been picked up by a production company.

My most successful piece of work is "Intensive Care", a documentary which peaks into life inside an intensive care unit and starts a conversation surrounding healthcare in New Zealand.

Awards:

- 2018 ○ Best Secondary School at Doc Edge Festival
- Runner Up for Best Secondary School at Uni Shorts Film Festival

Referees available on request