

# Quentin-Gabriel Thurier

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Profiles:  

129 Hobsonville road, West Harbour, Auckland, New Zealand

France & New Zealand citizen

## SKILLS

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**Science:** Machine Learning, Deep Learning, Natural Language Processing, Statistics, Linear Algebra, Probability

**ML Engineering:** TensorFlow, scikit-learn, spaCy, Git, Github, Prodigy, Argilla, DVC, Prefect, Docker, GitLab

**Data Engineering:** Snowflake, Redis, ArangoDB, Elasticsearch, Hadoop (*certified*), Hive, Spark (*certified*), Redshift

**Visualisation:** Dash, Shiny, Tableau, Snowsight, MicroStrategy, Superset

**Programming Languages:** Python, Bash, SQL, R, SAS (*certified*), Java

**Cloud Platforms:** Amazon Web Services, Google Cloud Platform (*certified*)

**Project Management:** Confluence, Jira, Jira automation, Miro

## EXPERIENCE

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### • Decoded Health

Auckland, New Zealand

*Senior ML Engineer*

*June 2023 – Present*

- **Develop and maintain Decoded Health's AI medical resident for urgent care clinics.**
- Research, implement and deploy prompt engineering strategies in order to summarise patients' conversations using pretrained large language models, allowing a fully automated medical intake process.
- Establish standards for data versioning and model monitoring, building on doctors and other engineers feedback.
- Take part in the on-call schedule and manage production incidents.

### • Xero - Science, Evaluation and Measurement team

Auckland, New Zealand

*Senior Applied Scientist - ML Products*

*November 2020 – May 2023*

- **Worked in the cross-functional team owning Xero's ML-powered bank reconciliation service.**
- Researched, implemented and deployed deep learning models to support Xero's flagship product, which have proven to accelerate transactions reconciliations and reduce the time spent on manual data entry by bookkeepers.
- Co-led research on learning to rank and named entity recognition architectures applied to bank statements.
- Collaborated with product and intellectual property teams for models online evaluation and patents filing.
- Drove the refactoring of a legacy data pipeline in order to better support model experimentation.
- Supervised four direct reports (graduate and junior applied scientists).

### • PredictHQ - Data Intelligence team

Auckland, New Zealand

*NLP Data Scientist*

*May 2019 – November 2020*

- **Developed PredictHQ's API ML-based features together with data and software engineers.**
- Researched, implemented and supported the deployment of a ML classifier for event entities resolution, halving records duplication rate and giving PredictHQ a competitive edge in the events data providers space.
- Researched, implemented and supported the shadow deployment of an ontology-based ML multi-label classifier for event entities categorisation, enhancing feature engineering capabilities for downstream ML tasks.
- Led a team towards the delivery of a ML regression model prototype for concerts events ranking, which resulted in the prioritisation of a new service to handle features precomputation.

### • Orion Health - Research team

Auckland, New Zealand

*Data Scientist*

*February 2017 – April 2019*

- **Shaped Orion Health's ML-based products features with clinicians and software engineers.**
- As the principal investigator for a research program on AI interpretability in healthcare, successfully applied for funding, formed and led a team of software engineers, data scientists, legal experts and clinicians towards the delivery of multiple prototypes and two peer-reviewed publications (JAMIA & IEEE).
- Led the R&D and supported the staging deployment of a ML health risk calculator into North Shore hospital.
- Delivered multiple deep learning model prototypes for clinical natural language processing (eg: concept extraction, de-identification, dosage instruction parsing), paving the way for current Orion Health's products ML capabilities.

### • Qrious

Auckland, New Zealand

*Data Scientist*

*September 2015 - January 2017*

- **Delivered insights using mobile phones activity traces and public wifi network data.**
- Conducted bespoke geospatial studies (eg: event attendance, domestic tourist provenance, modes of transport usage, travel time, road traffic volume) for local councils as well as tourism and transport organisations, helping Spark New Zealand to identify strategies to monetise its data assets.
- Led the research on population flows clustering, mode of transport detection, and work/home locations inference.
- **NetBooster - Data and Analytics team** Paris, France  
*Senior Data Manager* *July 2014 – August 2015*
  - **Implemented data-driven marketing solutions using web server logs.**
  - Initiated many proof of concepts (eg: next page visited prediction, users online journeys clustering, multi-channel marketing campaigns optimization, conversation rate estimation over time) for a leader of the automotive industry, allowing NetBooster to start off its data science offerings.
  - Developed and maintained customers cloud analytics dashboards in collaboration with web analytics experts.
- **Société Générale Corporate and Investment Banking - Anti-Fraud team** Paris, France  
*Data Scientist* *October 2010 – October 2013*
  - **Worked in the cross-functional team in charge of unauthorized trading prevention.**
  - Contributed to the implementation and roll-out of a network analysis software aiming at strengthening Société Générale's unauthorized trading prevention system in response to a major financial loss ("affaire Kerviel").
  - Initiated the statistical methodology to reveal suspicious activity requiring further investigation by auditors.
  - Led the R&D on financial portfolios clustering.
- **Société Générale Corporate and Investment Banking - Anti-Fraud team** Paris, France  
*Intern - Master's thesis focused on statistical methods for preventing unauthorized trading* *April 2010 – Sept. 2010*
- **Colorado State University - Statistics Department** Fort Collins, USA  
*Intern - Conducted time series analyses of carbon emissions* *June – July 2009*
- **Euler Hermes SFAC (credit insurance) - Economic Studies department** Paris, France  
*Intern - Implemented dynamic economic dashboards* *July – August 2008*

## EDUCATION

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- **Telecom ParisTech** Paris, France  
*Post Master's degree in ML and Big Data ("Mastère spécialisé")* *October 2013 – June 2014*
- **University of Washington** Seattle, USA  
*Certificate in Data Science* *January – June 2013*
- **ENSAI, National School for Statistics and Information Analysis** Rennes, France  
*Master of Science in Statistics equivalent ("Diplôme d'ingénieur")* *2005 – 2010*

## PATENTS

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|--------------------------------------------------------------|------------|
| Method, Program, and Apparatus for Processing Sensitive Data | May 2023   |
| Methods and Systems for Training Attribute Prediction Models | March 2023 |
| Transaction Data Processing Systems and Methods              | June 2022  |

## RESEARCH

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|--------------------------------------------------------------------------------------------------|----------------|
| Physician understanding, explainability, and trust in a hypothetical ML risk calculator          | JAMIA 2019     |
| Smart MedRec: Using ML for reading dose instructions and incorporating this in clinical software | HINZ 2019      |
| Inspecting a ML-based clinical risk calculator: a practical perspective                          | IEEE CBMS 2019 |
| Interpretable ML for healthcare                                                                  | HINZ 2018      |
| Improving clinical named entity recognition with transfer learning                               | HIC 2018       |
| HOPE (Health Outcomes Prediction Engine) for stroke                                              | HINZ 2017      |
| New Zealand health data review                                                                   | HINZ 2017      |

## INTERESTS

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Judo (2nd degree black belt, New Zealand nationals medalist, coaching, former club secretary), Surfing, French Cinema