

# MILES THOMPSON

Technical Architect | Data Focus | goodbright.nz

## **ABOUT ME**

I am a developer, founder, technical architect and former Chief Technology Officer at CreditSights Inc (the leading independent financial research provider in NYC).

## **OBJECTIVE**

Having had a long-standing interest in data science and machine learning, I have recently decided to focus all my effort on consultancy work in this area.

I am especially interested in taking the latest machine learning and data processing algorithms and putting them into a production context that makes them accessible to a wider audience.

## **EDUCATION**

## **BSc Hons I, Math**

University of Otago, 1995 First Class Honours, Mathematics.

## BA, Sociology

University of Canterbury, 1994 Bachelor of Arts

**Certified Scrum Master** 

## SELECTED EXPERIENCE

## **ARTIST PROGRAMMER • THE GREAT OUTDOORS • 2017**

Working with renowned theater director Annie Dorsen, created a data pipeline to download sentences from the social stream and, using machine learning techniques, generate a unique script for each performance. The show has opened in The Netherlands, Paris, Berlin, New York, Boston.

Platform/Skills: Python, Machine Learning, GenSim, Apache Spark, Motorway

# TECHNICAL ARCHITECT • <u>CREDITSIGHTS.COM</u> • 2008 – JAN 2018 Over the last ten years I have acted as technical and design lead across a number of successful projects. Most recently, I:

- Designed and led the development on a GraphQL based Api which provides the flagship CreditSights content and numerical risk information via a JSON end-point to a React web front end.
- As scrum master and project lead, led the design and development of a well-received system that financial analysts











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use to track, share and approve corporate fundamentals, various formulas and presentation of those fundamentals to clients.

- Built a system to receive all bond pricing from Bank of America Merrill Lynch, perform various calculations (such as bond return and volatility) and store this information in a way optimized for efficient query and processing. I optimized a process that initially took more than a week so that it could run in less than forty five minutes while allowing for more complex calculations.

**Platform/Skills**: C#, .Net Core, .Net API, GraphQL, SQL-Server, ETL, Python, Luigi, Scrum Master, Team Lead, Apache Spark, Azure, AWS

#### PROGRAMMER/FOUNDER • HASHMAPD.COM • 2013

Working with Drs Abraham and Frean created a pipeline that processes tweets, computes semantic hash, and then draws a density map of the people based on what topics they discuss. While unsuccessful as a business venture we learned a lot about the business of social media and how to scale data and machine learning techniques.

Platform/Skills: Python, Machine Learning, Theano, CouchDB

## DEVELOPER/FOUNDER • AUTISM360.ORG • 2012

After helping to ensure funding from the Moodys foundation I put together a team of developers, designers and support staff to create a site for families affected by autism. The site processes the symptomatic data of people on the autism spectrum using advanced medical collaborative filtering techniques (for which I was awarded a patent) and recommends 'treatments that have worked well' for 'other people like you'.

Platform/Skills: Java, SQL-Server, Collaborative filtering, Founder, Team Lead











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#### CHIEF TECHNOLOGY OFFICER • CREDITSIGHTS.COM • 2003-2008

Built the initial technology platform and team for this (at the time) fast growing early stage financial company. Designed the technical architecture and managed the development on their flagship financial research and risk modeling products through multiple major iterations. Managed and grew an effective technology team and ensured deployment of Content Management, Business Intelligence, desktop, server support, Sales and Accounting systems across multiple office locations. During this period CreditSights grew rapidly in revenue and staff on a relatively stable cost basis, which I believe reflects well on my work as CTO.

Platform/Skills: C#, Microsoft.Net, Information Technology Management, Business Strategy

## REFERENCES

On request, I would be glad to provide you with references who can confirm and expand on the details described above, as well as a number of other relevant projects over the years.

## **AWARDS AND PAPERS**

**Patent**, 2001, Co-Inventor medical collaborative filtering and cluster analysis system (for kids with Autism) <a href="https://patents.google.com/patent/US20030061072">https://patents.google.com/patent/US20030061072</a>

**Academic paper**, November 1995, "A Neural Statistical Hybrid". International Association of Neural Networks and Expert Systems.







