# John Mathews Ph.D., ACA, MEng

#### Financial Data Scientist

# Personal Details

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Phone: +31 683 775 990
Passport: British

Location: Haarlem, The Netherlands

# Technical competencies

Google Cloud Platform, TensorFlow, Keras, SQL, Python, Numpy, Pandas, BASH, Git, HTML/CSS, MATLAB, Vimscript

## Summary

John is a data scientist who specializes in financial and blockchain domains. He is the only data specialist at a cryptocurrency exchange and works with stakeholders across the business. He is an expert Python programmer and a self-taught software engineer. He is increasing his machine learning expertise by studying online.

John holds an engineering Ph.D. and is a chartered accountant (ICAEW). He writes about blockchain technology and data analytics at <u>johnmathews.eu</u>. John is curious and outgoing.

## **Employment**

07.2018 - <u>Blockport</u>, Amsterdam Present Data Scientist

I design, create and maintain internal data tools for a fin-tech startup. As the only data specialist, I am delivering tools to provide business insights including; management information, fraud analysis, tax reporting, KPI tracking, regulatory compliance, marketing and growth performance.

I work closely with stakeholders across the business including back-end, founders, support, finance, DevOps (CI/CD) and growth teams.

09.2017 -06.2018 Anaheim Consulting, Remote

Consultant CFO

Consulting for a crypto tech startup, I delivered the technical design and execution of a novel fundraising method, and led investor relations through a funding round.

04.2014 **–** 09.2017

PwC, Data Assurance, London

Senior Associate

Whilst working as a chartered accountant and external financial auditor of clients in banking and capital markets in London I executed the ETL engineering pipeline, and the analysis and visualization of large financial datasets. Data included consolidated and subsidiary ledgers to support statutory audits of public financial service providers, financial journals across complex corporate structures, credit books, revenue, and expenses records.

This required understanding of a client's operating environment and business reporting processes. Strong interpersonal skills and rapport building were required to work effectively and transfer and analyze data outside the client's organization.

04.2010 – PARDEM Research Network, Vienna 10.2013

**Doctorate Researcher** 

I designed, implemented and reported a groundbreaking investigation into the behavior of granular materials in increased gravities. A computational model was validated using a physical experimental model I created and tested. I developed extensive problem-solving and research skills whilst meeting complex goals. Collaboration and technical communication skills were honed through regular

international conferences and published collaborative research.

## Skills and Competencies

- Advanced Python, Matlab, Shell, SQL, TensorFlow, Keras
- Machine learning Support Vector Machines, Neural Networks, Logistic and Multivariate Regression
- Data engineering extraction, transformation, loading, batching
- Data cleansing, wrangling, visualization
- Google Cloud Platform big query, pub/sub, dataproc, dataflow, datastore,
- Technical design, communication and review
- Modeling of complex systems with experimental validation
- Management Information design and review.
- Financial audit and reporting
- Business appraisal and evaluation.
- Financial modeling of business processes incl. Revenue/Expenses, opportunity cost, depreciation, etc

#### **Publications**

- Technical articles on Blockchain, encryption and data analysis at www.johnmathews.eu
- Centrifugal Modelling of Granular Flows, Cabrera M, Mathews J. Wu, W., Eurofuge conference proceedings
- Model Tests of Silo Discharge in a Geotechnical Centrifuge, Mathews J. Wu, W., (2015) Powder Technology
- Investigation of Granular Flow Using Silo Centrifuge Models, Mathews J., (2013) Doctoral Thesis, Austrian National Library, Central Library of the University of Natural Resources and Life Sciences, Vienna
- Experimental Investigation of Flow and Segregation Behaviour of Bulk Solids in Silos Under High Gravity Conditions, Mathews J. et al., (2013) in Particle Based Methods III – Fundamentals and Applications, PARTICLES 2013, Stuttgart, Germany, 18-20 September 2013. International Centre for Numerical Methods in Engineering (CIMNE), 352 – 362

#### **Education & Certificates**

06.2019	Google Cloud Platform Big Data and Machine Learn	ing Coursera
	Fundamentals - <u>certificate</u>	
05.2019	Deep Learning Specialization (5 Courses) - certificat	<u>e</u> deeplearing.ai - Coursera
03.2019	Machine Learning - <u>certificate</u>	Coursera
04.2017	Chartered Accountant – ACA	ICAEW, London
10.2013	Doctorate degree – PhD	Universität für Bodenkultur, Austria
	"Investigation of granular flow using silo centrifuge mod	els"
06.2009	Master's degree – MEng (Hons)	University of Edinburgh, Scotland
	Civil and Environmental Engineering	
06.2004	A-Levels	Shrewsbury Sixth Form College, England
	Maths (A), Advanced Maths (B), Physics (A)	