Marcél Busschers

MSc Student & A.I. Freelancer



About me

Born and raised in Cape Town,
South Africa; native in English
and can speak Dutch at a
respectable level. Affinity in
Computer Science and Data
Science, specialising in
Artificial Intelligence and
Machine Learning. Can work
well independently as well as
collaboratively. Additional
affinity with researching and
reporting. Currently finishing
up my MSc in Bath, and have
TU Delft on hold whilst I job
hunt

personal

Marcél Busschers Dutch, British, South African 8 September 1999

Areas of specialization

A.I. • Machine Learning • Data Engineering • Computer Science • Quant Trading

Interests

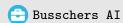
Endurance Running, Formula 1, Gaming, IOS Development, FX Trading, IoT Systems, A.I. Technologies

Skills

Data Science & Analytics, Python, PyTorch, Pandas, Machine Learning, Git, APIs

Critical Thinking, Financial Knowledge, Reports, Research, Presentations.

- in marcelbusschers
- Marcel-Busschers





EDUCATION

2022-2025

MSc Artificial Intelligence

UNIVERSITY OF ВАТН · Bath, United Kingdom 🗣

Distance Learning, part-time taught master focused solely on Artificial Intelligence.

Topics include: Programming for AI, Mathematics for AI, the Foundations of AI (core concepts and ideologies), Applications of AI (in society and firms), bridge between humans and intelligent machines, Natural Language Processing, AI Systems Engineering, formal understanding of AI (computationally and under research), Deep Learning, Reinforcement Learning, Robotics and Machine Vision.

Currently undergoing dissertation. Flexibility in having it completed quicker at full-time pace, or longer at part-time pace.

2021-hold

MSc Computer Science

DELFT UNIVERSITY OF TECHNOLOGY · Delft, Netherlands • Currently have this programme on hold

Full-time degree, specialising in Artificial Intelligence Technology

A research master focused on Al. Completed courses include: Al Techniques, Machine Learning 1, Machine Learning 2, Deep Learning, Data Visualisation, as well as a research project for Social Signal Processing.

2018-2021

BSc Computer Science

for firms and society.

VRIJE UNIVERSITEIT AMSTERDAM · Amsterdam, Netherlands Concluded with a minor in Data Science; involved data pre-processing, wrangling, analysis and privacy (GDPR etc.). Also included Information Retrieval techniques, and Strategic Management of Technological Innovation

Bachelor Thesis was an MSc level project in the field of Machine Learning. Involved creating a Variational Autoencoder with Transformer architecture from scratch. Transformed the model from NLP to a financial data setting, and visualised the latent-space to analyse any patterns in financial market

2017

High School Diploma

Elkanaн House · Cape Town, South Africa 🥊

https://www.elkanah.co.za



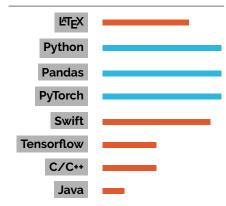
LANGUAGES

English	C2	mother tongue					
Dutch	C2		•	•	•	•	
Japanese Spanish	C1		•	•	•		
Spanish	A2	•	•				

Al Specialisations

- Reinforcement Learning
- Natural Language Processing
- · Computer Vision
- Transformers
- Generative Modelling
- Time Series Forecasting

Programming





Curriculum

2024-present

Al Engineering Freelancer

Busschers Al · Amsterdam, Netherlands





Offer A.I. software solutions on a freelancing basis. Projects ranging in size, usually internal SaaS solutions for companies requiring sales/customer tracking; as well as generative chat-bot models used for companies landing sites.

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Al Model Trainer

OUTLIER AI · San Francisco, U.S. (remote)



Training AI models via participating in response tweaking/correcting, data adaptation, hyperparameter tuning, etc.

Jan-Jun 2018

FX Trader

VISIONARY TRADES GROUP · Cape Town, South Africa



A start up trading company based in Cape Town, South Africa. This was a small position filled directly after high school, before moving to Amsterdam to study. Involved analysing markets and posting tips to alert-feeds for subscribers. Had to show proficiency in analysing certain markets based on percentage yields made with company funds.

CERTIFICATES

Jan 2021 MQL4: Development of trading bots for MetaTrader 4/5

Jul 2018 IOS Development: Swift, UIKit, SwiftUI, Storyboards. Techdegree offered by TeamTreehouse, discontinued

in 2018 before acquisition of certification. URL Archive: Link Here

more Please see my Courses page for more.

RESEARCH & PUBLICATIONS

2021 Representing Market Data in Latent Space using a Transformer VAE

Variational Autoencoder will be created by making use of Transformer blocks to allow for a more accurate representation of sequential data; this model is then applied to a different set of sequential data, financial (market) data - XB_40001

2021 Using Reinforcement Learning to Create a Forex Trading Bot

Build an autonomous foreign exchange (FX) trading agent that can learn how to trade and generate profits using a deep reinforcement learning algorithm named Proximal Policy Optimisation (PPO) - X_400154

2024 Exploring the Impact of Collaborative Games on Perceived Interpersonal Closeness in Romantic Partners
Investigates the role of a collaborative video game on the perceived interpersonal closeness of romantic
partners before and after playing three rounds of the game. We examined the dyadic two-player game
Overcooked! 2. - CS4165

2024 Enhancing Time Series Forecasting with Transformer-Based Reinforcement Learning Techniques Current Master Dissertation

PROJECTS

2021 Lecturing percentages: the agent way

Implementation of a conversational agent that teaches the user how to work with percentages. The agent notices the emotional state of the user and handles accordingly when wrong answers are given and frustration can happen. - CS4270

2023 RL Project: Forex Market Prediction

Apply reinforcement learning (RL) to predict the next 5 to 10 candlesticks using forex historical data and optimise trading strategies based on these predictions.

more Please see my Projects page for more.

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