

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.

 marcelbusschers

 Marcel-Busschers

 Busschers AI

 Bio

EDUCATION

2022–2025

MSc Artificial Intelligence

UNIVERSITY OF BATH • 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 AI. Completed courses include: AI 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

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 for firms and society.

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 data.



2017

High School Diploma

ELKANAH HOUSE • Cape Town, South Africa

<https://www.elkanah.co.za>



LANGUAGES

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




AI SPECIALISATIONS

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

PROGRAMMING

L ^A T _E X	• • • • • •
Python	• • • • • •
Pandas	• • • • • •
PyTorch	• • • • • •
Swift	• • • • • •
Tensorflow	• • • • • •
C/C++	• • • • • •
Java	• • • • • •

CURRICULUM

2024–present	AI Engineering Freelancer BUSSCHERS AI · 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.	
↔	AI 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

May 2025	C++ Programming Professional Certificate by OpenEDG C++ Institute: Cert Here
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	<i>Representing Market Data in Latent Space using a Transformer VAE</i> 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	<i>Using Reinforcement Learning to Create a Forex Trading Bot</i> 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	<i>Exploring the Impact of Collaborative Games on Perceived Interpersonal Closeness in Romantic Partners</i> 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	<i>Enhancing Time Series Forecasting with Transformer-Based Reinforcement Learning Techniques</i> Current Master Dissertation

PROJECTS

2021	<i>Lecturing percentages: the agent way</i> 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	<i>RL Project: Forex Market Prediction</i> 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.