

## Justin Louckx - Full Stack Software Engineer

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**Nationality:** Belgian & South African  
**Address:** Alkmaar, North Holland, Netherlands  
**Date of Birth:** 11 September 1988 (33 Years Old)

### EDUCATION

*BSC Mechanical Engineering* 2007 - 2012  
*University of Witwatersrand, Johannesburg, South Africa*  
*Thesis:* A Neural Network Model-Based Anti Lock Brake System. A Simulink/Matlab NN NARMA-L2 predictive model to control slip.  
*Coursework included:* Maths (I, II, Methods), Mechanics (I, App A, App B), Thermodynamics(I, II, Systems), Fluid Dynamics(I, II, Mechanics), Engineering Design(I, II), Mechatronics(I, II), Physics I, Chemistry I, Software Development (Matlab, Simulink, C++, Python), Numerical Methods and Statistics.

### WORK EXPERIENCE

*Software Engineering (See Page 2 for more details)* 2021 - Present  
*Alkmaar, North-Holland, Netherlands*

- *Python & React Web Development, Data Structures, Machine Learning*

*Foreign English Teacher* Aug 2019 - Aug 2022  
*EPIK - Chungcheongnam-do Yesan, South Korea*

- *English Elementary School Teacher at Sinam, Ungsan and Bongsan School*

*Remote Derivatives Trader* Mar 2021 - Jul 2021  
*ARB Trading Group - Chungcheongnam-do Yesan, South Korea*

- Short term technical and algorithmic trading on ICE in Brent Crude Futures.
- Primary focus on regression opportunities between spreads and outrights.

*Personal Portfolio* Apr 2019 - Present

- Short term technical stock and Crypto trading on the Johannesburg Stock Exchange (JSE).

*Associate Derivatives Trader - Bangalore, India* Jan 2014 - Jul 2019  
*Hertshten Group, Futures First*

- Day trading on ICE and NYMEX with a primary focus on energy products.
- Implemented multiple long and short term strategies involving both spread and outright future positions.
- Price action trader with fundamental bias and technical execution.
- Algorithmic based trading.
- Responsible for conducting interviews, hiring and mentoring new traders in risk management and coping techniques.
- Part of in-house research and development team (HAWK - Internal Trading Platform) responsible for liaising with development team to create Trader-First trading platform. Tasked with aiding the development team in building a trading platform from the ground up.
- Head of Sports committee, responsible for planning and running interbranch competitions.
- Created and organised a company charity drive for "The Refuge Foundation" which funded 35 girls' private schooling tuition.
- Hosted and emceed 15 year Bangalore Futures First anniversary.

*Derivatives Trader - Ebene, Mauritius* Mar 2012 - Dec 2014  
*Hertshten Group, Mercury Derivatives*

- "Point and Click" day trading of ICE Brent Crude.
- Fundamental analysis and backtesting via Bloomberg terminal.
- Implemented Reuters technical analysis.

**Python Web Development** included extensive Python programming and building various modern web applications. This included experience using databases like MongoDB, deployment to production infrastructure, templating and various software engineering best practices for building ORM based applications. Projects included building a micro blog web server using Flask and deploying the production site to Heroku. A Pricing Alert web server that allows users to register, log in and then create, edit and receive alerts via Mailgun.

**React Web Development** included the use of components, props and data binding. In depth use and understanding of built-in and custom hooks. Sending Http requests & handling transitional states and responses. Built a food delivery app using hooks, fragments, portals, side effects and styled with CSS modules. Next.js, Redux, Redux Toolkit, React App Database and Deployments and working with Typescript.

**Data Structures, Algorithms and Analysis** gained experience in key data structures and algorithms including trees, heaps, stacks and queues. Additionally had exposure to complexity theory and analysis of algorithms using Big-O notation. Applied these skills to solve numerous algorithmic problems on leetcode.

**Machine Learning and Data Science** learned and applied key machine learning concepts in regression (linear regression, SVRs and random forests) and classification (SVM, K-NN and various generative and discriminative models). Also gained experience in using Reinforcement learning, NLP, PCA methods and boosting. Additionally built and deployed custom models for deep learning in TensorFlow 2.0 and PyTorch which included various projects including: Image classification model with CNN's, Loan Repayment Predictor model using ANN's, Apriori Supermarket model and a NLP sentiment model for a restaurant review system.

## PERSONAL PROJECT

**WordMaster 2022** - Python, Flask, MongoDB, Figma, HTML, CSS, JavaScript, Heroku [live site](#) | [github](#)  
*A web-app inspired by "Wordle" where users can sign up, tackle multiple word challenges daily and track their performance globally.*

- Built back-end user authentication, Database class connection to MongoDB
- Designed mobile and web layouts using Figma
- Created dynamic HTML pages with Jinja2 and JavaScript, responsive CSS styling.

## SKILLS & EXPERIENCE

Python, HTML, CSS, Mongo, Git, Heroku, Unit Testing  
Flask, Jinja2, TensorFlow2, Scikit, Numpy, Pandas, Pytest, Figma  
Javascript, React, Node, Solidity, Unity, C#

## AWARDS & ACHIEVEMENTS

2nd place Futures first inter branch trading competition 2015  
UG - Academic Excellence scholarship to University of the Witwatersrand 2007  
Academic scholarship to Parktown Boys High school 2001-2006  
Black Belt first Dan in Karate JKS 2005 and South African colours

## INTERESTS

Football, Squash, Table Tennis, Badminton, Gym, Scuba Diving, Dota 2, DeFi

**References available upon request.**