JAKOB AUNGIERS

07772442269 | www.Jakob-Aungiers.com | jakob@jakob-aungiers.com

EDUCATION

University of Southampton **Southampton, UK**

Master of Engineering (MEng) in Computer Science – 2:1 (Honours) Oct 2009 – Jun 2013

- Wrote research on *"Quantitative Analysis of Investor Behaviour using Agent-Based Simulations in Relation to the Efficient Market Hypothesis"*.
- Created a Java framework and wrote research on short-term FX market trends using agent-based models.

WORK

HSBC Global Asset Management **London, UK**

Quantitative Research Developer – Vice President Level May 2015 – Present

- Quantitative Research Developer within the front-office Global Investment Strategy team, London.
- Head of Development of a new greenfield investment-wide research visualisation, backtesting & house-view web-based quantitative application (Strategizer).
- I have headed up the creation of the Strategizer application and surrounding ecosystem within HSBC's Asset Management Group to disrupt and modernise the standard of investment information sharing and investment workflow amongst fund managers and analysis for the global business.
- I have created the full-stack of this web-based application using C# and the MVC Framework plugging into R scripts for running of quant models. I have developed the front end (Responsive Asynchronous Javascript, Bootstrap, HTML5/CSS3) and back end (C# MVC.NET), UI, UX and brand image of the project and it is being deployed to global investment teams with passionate backing by the Global Chief Investment Officer.
- I am also streamlining the investment strategy process through development and implementation of systematic processes for quant models within the Global Investment Strategy team.
- I am also developing active research into using machine learning/AI for tactical signals processing in market momentum and reversal signals using a deep learning neural network approach (LSTM for time series).

Schroders **London, UK**

Quantitative Developer – Analyst Level Aug 2013 – May 2015

- Quantitative Developer in the front-office Data Insights Team within Global Equities at Schroders, London.
- Creation of analytical methods (using Machine Learning, Classical & Bayesian Statistics) to evaluate and derive meaning from large and abstract data sets for use within the equity investment space to support fund managers and research analysts in making investment decisions and reducing risk.
- Includes using predictive analytics, creation of Monte Carlo simulations, research and systematic extraction of exotic data as well as front office strategy development.
- CFA Investment Management Certificate holder (qualified September 2013).

FactSet Research Systems **London, UK**

Software Engineer Jun 2012 – Sept 2012

- Research of regression factor models leading to the development of a multiple linear regression estimations tool for calculating time taken to perform a set of aggregate calculations on a batch of indices.
- Developed multiple linear regression models using: Perl, SQL & C Shell Scripts.

Buckle Consulting **Southampton, UK**

Web Designer & Developer Nov 2010 – Jul 2013

- Back-end development using in-house CMS, PHP, MySQL.
- Front-end development using jQuery, AJAX, HTML5, CSS3.
- Responsible for front-line client communication and development of bespoke solutions

Skills, Activities & Interests

Languages: Fluent in English, Czech & German
Technical Skillset: Python, C#, MVC .NET, Full-Stack Development, Java, R, SQL, PHP, JavaScript, HTML, CSS
Entrepreneurial Skillset: Setting up disruptive business functions/greenfield technology upstarts, marketing, brand awareness, graphic design (brand, marketing as well as UI/UX), high-level business analysis.

Personal Research & Work:

- **2017** – Lead a speech in using deep learning neural networks (LSTMs) for time series analysis at a conference on Data Science for Internet of Things.
- **2017** – Got commissioned as an independent consultant on the use of alternative data from IoT devices as a driver for new and alternative investment insights in the hedge fund/asset management industries.
- **2016** – Published article on the use of LSTM neural networks for time series analysis. Article made it onto the Hacker News front page.
- **2015/2016** – Independent creative consultant to PepsiCo and Converse on new brand visions, business expansion and new product lines.
- **2015** – DroneHack Hackathon 1st Prize winner: Won the University of Central Lancashire's DroneHack hackathon.
- **2015** – Created a Monte Carol Simulation framework, developed in Python, that models the returns of randomly generated portfolios and plots them on a time series chart against a given benchmark.
- **2014** – Developed an autonomous quantitative equity analysis platform, coded primarily in Python, which highlights stocks using a combination of technical, fundamental and statistical analysis based on historical data and combined with a cross-matrix of correlation coefficients.
- **2014** – Taught a 3 month web coding course in partnership with the Level 39 startup incubator for "Code First: Girls", getting girls into technology.

Activities & Interests:

- I am a competitive skydiver with over 800 jumps, I hold a current British Record in skydiving and I have won gold medals in national competitions as well as achieving international skydiving qualifications. I am also a qualified skydiving coach. The sport has taught me a great deal of self-confidence and to be able to stay very calm and composed in even the most extreme of situations.
- I'm an avid surfer, frequenting the West coasts of Europe and Africa as well as the Asia Pacific in search of waves.
- I hold an SSI Open Water SCUBA Diving Qualification.
- I am also a freelance photographer, specializing in models and landscapes. I've won several local and one major international competition in photography; "Environmental Photographer of the Year 2008 (Under 21)" as well as having shot for clients such as Calvin Klein Underwear and Bench.