

# BALGOVIND RANJITH

A highly motivated and accomplished engineer transitioning into the field of finance & technology. Excited to apply analytical skills and expertise in leading teams, stakeholder management, and discovering innovative solutions to complex challenges. Proficient in a variety of programming languages and tools, including **Python** and **SQL**, as well as **JS**, **HTML** and **PHP**.

## CONTACT INFO

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## ACADEMIC PROFILE

### **BACHELOR OF CIVIL ENGINEERING (HONS)** The University of Sheffield | 2015 - 2018

- **First-class** achieved – achieved more than 80%
- Relevant units include Advanced Calculus, Partial Differential Equations, Taylor Series, Regression Analysis, MATLAB, Mathematical Optimisation, and Engineering Mechanics.
- Received award for **Best Overall Performance in Final Two Years of Course**.
- Received award for **Best BEng student at Level 3**.

### **DATA STRUCTURES & ALGORITHMS IN PYTHON** Udacity

Demonstrated proficiency in Python data structures, algorithms, and object-oriented programming.

### **INTRODUCTION TO ARTIFICIAL INTELLIGENCE WITH PYTHON** EdX + HarvardX

- Understanding of the theory behind **graph search algorithms**, **classification**, **optimisation**, **reinforcement learning** and other topics in artificial intelligence and machine learning.
- Experience in libraries such as **NumPy**, **Pandas**, **Scikit-learn**, **PyTorch** and **TensorFlow**.

### **FINANCIAL DERIVATIVES** Khan Academy

- Learnt various financial derivatives including **options**, **swaps**, **futures**, **mortgage-backed securities (MBSs)**, **collateralized debt obligations (CDOs)**, and other derivatives.
- Developed a deep understanding of **pay-off diagrams**, **option trading strategies**, and **option pricing** including **binomial trees** and **Black Scholes**.

### **STATISTICS** EdX course – London School of Economics

Relevant units include **data visualization**, **probability theory**, **normal distribution**, and **linear regression**.

### **ACCOUNTING: PRINCIPLES OF FINANCIAL ACCOUNTING** Coursera course – IESE Business School

Relevant units include **balance sheets**, **income statements**, **cash flow statements**, **financial statement analysis**, and **accrual accounting**.

## PROJECT AND SKILLS

### PYTHON DEVELOPMENT Financial Modelling

- o Conducted **technical analysis** on NASDAQ stocks using **Python** with **Pandas**, **NumPy** and **Matplotlib** to backtest, by **algorithmic trading**, and optimise various investment strategies that leverages stock price volatility.
- o Developed a **fundamental analysis** stock screener using **Python** to develop a personal investment strategy.

### WEB DEVELOPMENT

- o Developed multiple websites and mobile applications for social media apps, dating app, and resource-sharing websites.
- o Used **Dart/Flutter**, **ReactJS**, **React Native**, **PHP**, **HTML**, **CSS** and **JavaScript** for the front ends and **SQL** and **Firebase (NoSQL)** databases for the back ends. Used **Git** for collaboration.
- o Carried out the development and marketing of a suite of online productivity tools using **Search Engine Optimisation (SEO)** for a wider reach.

## WORK EXPERIENCE

### STRUCTURAL ENGINEER Elliott Wood

Sep 2021 - Present

- **Led the structural design of a £90 million** headquarters building, **managing a team of 6** to deliver the design within schedule and budget using Teams to schedule and assign tasks.
- Engineered several options quantifying implications to compare and discuss during meetings to select optimal solutions for the client.
- Delivered the project in **half the time of conventional projects** through **confidence in ability**, quick decision-making, and **effective delegation**.
- **Communicating complex ideas** – created drawings to illustrate engineering principles to laymen to inform of cost, aesthetics, programme and other implications.
- **Developed and maintained strong stakeholder relationships** with the external team, resulting in increased trust and direct comm channels for efficient decision-making.

### CONSULTANT Recipro Engineering

Jul 2017 - Present

- Used **PowerApps** and **SharePoint** to create applications for timesheets and knowledge sharing amongst the engineers.
- Developed a marketing strategy on their website by displaying facts and figures about Recipro's abilities resulting in **increased invitations to tender**.

### ASSISTANT STRUCTURAL ENGINEER Atkins

Sep 2018 – Sep 2021

- Supervised a construction site and built rapport with workers to ensure safe and quality-controlled construction.
- Developed a reporting tool using **Power Query** for **data analysis**, simplifying manual data manipulation and visualising data for clients on **PowerBI**.
- **Analytical thinking** – Devised schemes for the design of a laboratory by considering constructability, cost, sustainability, and potential future use, creating a decision matrix to objectively evaluate each scheme.