BAL RANJITH

A highly motivated and accomplished engineer transitioning into the field of technology. Excited to apply analytical skills and expertise in leading teams, stakeholder management, and implementing innovative solutions to complex challenges. Proficient in a variety of programming languages and tools, including **Python**, **Flutter**, **ReactJS**, **React Native** 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, Regression analysis, MATLAB and Mathematical optimisation.
- 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.

PROJECT AND SKILLS

VIEW MY PORTFOLIO – https://balgovidr.github.io/

FULL STACK DEVELOPMENT IStructE Papers
istructepapers.web.app
- Developed a repository to upload, view and comment on solved exam papers using **ReactJS** and **Firebase** (NoSQL) as its backend.
- Created an **algorithm** that rates users and papers to maintain quality of uploads.

FULL STACK DEVELOPMENT The Incubator Network
Incubator-9bb2c.web.app and Incubator (Play Store)
- Developed a social media platform to store, share & collaborate on ideas.
- Used **PHP**, **SQL**, and **JavaScript**, building on my knowledge of **HTML** and **CSS**.
- Carried out **SEO** using Chrome's Lighthouse and used **Git** for version control.
- Redeveloped this website along with an Android app using **Flutter** and **Dart** with **Firebase** (**NoSQL**) as its backend.

FULL STACK DEVELOPMENT Video Calling App
Developing an application with video calling ability using **React Native** with **WebRTC** and **Firebase**.

PYTHON DEVELOPMENT Financial Modelling

- 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.
- Used **vectorisation for arrays** and filtered stocks using market cap for a **25x quicker runtime**.
- Developed a fundamental analysis stock screener using **Python** to develop a personal investment strategy.

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**.
- Devised an **Excel** tool that calculates building material and embodied carbon through **probabilistic calculations** from layman-friendly inputs.
- **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 Reci 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 Reci's abilities resulting in **increased invitations to tender**.
- Implemented project management tools and processes to track project spending and develop accountability for project managers resulting in **higher profits**.

ASSISTANT STRUCTURAL ENGINEER Atkins

Sep 2018 – Sep 2021

- Developed a reporting tool using **Power Query** for **data analysis**, simplifying manual data manipulation and visualise data for clients on **PowerBI**.
- While leading the team for the data capture of assets for TfL, I ensured adequate time and resource requirements were communicated between my team and the Project managers. This resulted in **milestones being achieved with no overtime**.
- **Received positive feedback** from the client for my team's accomplishments.
- **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.
- Worked closely with the client to help them recognise their needs and drive informed decisions resulting in a changed scope more aligned with their requirements.