

# Issac Abraham

## Software Engineer

### Education

#### **MEng - Computer Science (2020-2024)**

University of Portsmouth

1st-year results = First-class honours (UK)

### Contact

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📍 Southampton, UK

### Skills

**Languages:** Python, Java, Pascal,

**Web Technologies:** HTML, CSS, Javascript, Node, Express, React

**Frameworks:** Selenium, MongoDB, PostgreSQL

**Spoken languages:** English, Malayalam

### Notable Projects

- **Dijkstra's Shortest Path with Google Maps API**

- Interfaces with Google Maps API
- Used OpenCV to read Image
- Used Dijkstra's Algorithm to calculate the shortest path

Used: Java/JavaFX, OpenCV

- **Sudoku Multiplayer Game**

- Made a WebSocket server in Python
  - Used Asynchronous Programming
- Used backtracking to calculate sudoku boards
- Used MongoDB to store running games
- Used Java/JavaFX to make desktop GUI client
- Used HTML, CSS, JavaScript to make web client

Used: Python, MongoDB, Java/JavaFX, HTML, CSS, Javascript

- **Algo Trader with Pattern Recognition**

- Interfaces with Oanda's Rest and Streaming API to get stock prices and access trading account
- Calculated mathematical indicators using pandas and NumPy
- Used Multiprocessing to find and store patterns
- Used Multithreading when trading
- Used Cython to speed up code
- Deployed to GCP VM

Used: python, parallel-programming, GCP

- **Youtube Playlist Duration Extention**

- Uses Javascript to access YouTube DOM to retrieve the time of all videos in the playlist
- Manipulates YouTube's DOM to add results using CSS & HTML

Used: Javascript, CSS, Chrome