Harith Al-Safi
Electronics and Computer Engineer

⚲ Leeds, UK ☎ +447444585915 @ harith.alsafi@gmail.com ⊚ https://harith.io/
github.com/harith-alsafi ⊡ linkedin.com/in/harith-al-safi

⚡ About me

An engineer with a great enthusiasm towards data science and Artificial Intelligence. I post regular workout and nutrition contents. Am quite fervent about blockchain, trading and investment.

💼 Experience

Robot Engineer
Robot fight league
📅 Nov 2023 - Mar 2024
📍 Leeds, UK

- Led a team to create a data science web app using Python Django, and Matlab for data analysis
- Supervised UI/UX designers on Figma designs whilst managing the developers

Frontend Developer
Velz Travel
📅 Aug 2023 - Dec 2023
📍 Remote

- Led a team to create a data science web app using Python Django, and Matlab for data analysis
- Supervised UI/UX designers on Figma designs whilst managing the developers
- Won multiple awards for the final delivery

Software Engineer (Placement Year)
Johnson Controls R&D department (JCI)
📅 July 2022 – July 2023
📍 London UK

- Administered legacy C/C++ projects whilst fixing bugs and adding new features
- Developed C# .NET library on serial data analysis generation for embedded system programs
- Designing analytics web dashboard with React JS and using TensorFlow for predictive AI
- Lead 10 interns to create a full business pitch and ended up placing 2nd amongst 18 competitors

Software Developer Freelance
Paperound
📅 Nov 2021 – Feb 2022
📍 Leeds UK

- Developed a book library management system in C
- Designed Python NumPy, SciPy and Scikit-learn scripts for neural networks and data visualization
- Programmed PowerShell and bash automation scripts for system administration

IT administrator
Mesopotamia Group
📅 Jun 2020 – Mar 2021
📍 Amman Jordan

- Collaborated with a team to build a local file server on Ubuntu 18.04 LTS built using Apache and Nextcloud
- Administered the system using Bash, PowerShell and Nmap with SSH tunneling and port forwarding
- Engineered a complex version using a raspberry pie, network interface card and attached storage.

📕 Education

BEng (Hons) in Electronics and Computer
University of Leeds (UoL)
📅 Sept 2019 – June 2024
☑ First-Class Honors

- Embedded systems, Microprocessors, FPGA, Electronics and Circuit Analysis
- Cloud and Parallel computing, Secure and Distributed systems, networking and Cybersecurity

👤 Skills

`C` `C++` `Java` `C#` `HTML5` `CSS` `JavaScript` `Dart` `Python` `Matlab` `SQL` `Bash` `Linux`
`Docker` `Azure` `AWS` `Firebase` `Jira` `Git` `SQLite` `MongoDB` `.NET` `WPF` `React` `Next.js`
`Tailwind CSS` `Material UI` `Qt` `Flutter` `Django` `Express.js` `NumPy` `Matplotlib` `SciPy` `TensorFlow`
`Pandas` `Scikit-learn` `CMake` `Node.js` `Arm Mbed` `Arm Keil` `Arduino` `AutoCAD`

`Hard-working` `Motivated` `Deterministic` `Leadership` `Communication` `Problem solver`

Arabic (Full Professional) **English** (Full Professional) **Spanish** (Elementary)

☰ Projects

JPS   📅 Sep 2022 - Jul 2023   📍 JCI
- Re-designed a legacy CLI project to a GUI with C# .NET WPF using MVVM and multithreaded design
- Invented an object-oriented scripting language with a custom compiler and runtime memory access.
- Integrated SQLite database, Excel I/O features, analysis tools and serial communication protocols
- Communicated with engineers to get a feedback loop on the app's design and features

MCPP   📅 Apr 2021 - Ongoing   📍 Personal
- Created a cross-platform math library for C++
- Engineered with DevOps using Travis-CI, testing with GoogleTest and building with Docker Cmake
- Incorporated numerical algorithms revolving around matrix algebra, statistics and machine learning.
- Documented using Doxygen and MkDocs

NotePad   📅 Nov 2021 - Ongoing   📍 Personal
- Programmed a cross-platform note app with Flutter
- Established backend using cloud authentication services with Firebase and storage with SQL CRUD
- Using the BLoC pattern for state management and the Provider package for dependency injection
- Used KerasRL library for reinforcement learning with human feedback to predict user's next note

Home Automation Embedded System   📅 Jan 2021 - May 2021   📍 UoL
- Engineered circuits for I/O functionality using data sensors, potentiometers, buttons and resistors.
- Programmed control system for home appliances such as temperature, air conditioning and lighting
- Developed mini-OS using LCD display and joystick
- Operated on STM32 board, C++ on an ARM MCU

✹ Professional Courses

Data Analysis with Python   📅 Oct 2021
- Develop Python code for cleaning and preparing data for analysis
- Perform exploratory data analysis and analytical techniques to datasets using Pandas, Numpy and Scipy
- Manipulate data using dataframes, understand data distribution, perform correlation and create data pipelines
- Build and evaluate regression models using machine learning scikit-learn for prediction and decision making

Databases and SQL for Data Science with Python   📅 Sept 2021
- Analyze data within a relational database on the cloud using IBM DB2, SQL, Python
- Construct SQL CRUD operations and compose views, transactions, stored procedures and joins.

Python for Data Science, AI & Development   📅 Aug 2021
- Demonstrate proficiency in using Python libraries such as Pandas, Numpy, and Beautiful Soup
- Access web data using APIs and web scraping from Python in Jupyter Notebooks.

Data Science Methodology   📅 Aug 2021
- Apply the six stages in the Cross-Industry Process for Data Mining (CRISP-DM) to analyze a case study.
- Evaluate which analytic model is appropriate among predictive, descriptive, and classification models used.

👥 Extracurricular

Event Coordinator Volunteer   📅 Nov 2021 – Feb 2022
IEE RAS ICRA   📍 Leeds UK

Web Developer hackathon   📅 Nov 2021 – Feb 2022
Royal Hackaway v6   📍 Leeds UK

Game Developer hackathon   📅 Nov 2021 – Feb 2022
Pygames hackathon Microsoft   📍 Leeds UK

AI Agent hackathon   📅 Nov 2021 – Feb 2022
Lablab   📍 Leeds UK