

Max Xiang

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Nationality: Italian

SKILLS

Programming: Python, Java, C/C++, JavaScript, SQL (MySQL), Bash

Frameworks and web: Flask, FastAPI, HTML/CSS

Developer Tools: Git, Docker, CircleCI, Google Cloud Platform, VS Code, PyCharm

Libraries: pandas, NumPy, Scikit-learn, Matplotlib, D3, Tensorflow

Languages: English (fluent), Italian (native)

EDUCATION

The University of Manchester

MSc in Advanced Computer Science, AI Specialisation

Manchester, UK

2018 – 2019

University of Bologna

BSc in Computer Science and Engineering

Bologna, Italy

2014 – 2018

WORK EXPERIENCE

Data Scientist

COFCO International

Feb 2020 – Jan 2022

Geneva, Switzerland [Remote]

- Researched and implemented Asian options pricing models for portfolio P&L simulations.
- Developed a full-stack web application using Flask with Bootstrap and D3 as the frontend to host interactive dashboards and tools.
- Worked with traders to upgrade market data pipelines for improved data consolidation.
- Improved data availability through data migration from multiple vendors to a unified MySQL database.
- Introduced git and CI/CD tools to the data science team, enabling cross-departmental collaboration.

Software Engineer Intern

Yoroi

Nov 2017 – Jan 2018

Bologna, Italy

- Developed neural networks for malware detection in Scala.
- Deployed a REST API prediction server using Docker and PredictionIO.
- Improved accuracy from previous methods and presented results to the CTO.

PROJECTS

Atlasjs | *JavaScript, D3*

Feb 2022 - Mar 2022

- Developed N-body physics simulation in JavaScript with D3 for visualisation.
- Improved performance from $O(N^2)$ to $O(N \log N)$ by implementing a quadtree data structure.
- Project-based approach for learning JavaScript. Demo available [here](#).

Motion Graphs | *C++, OpenGL, ImGui, motion capture*

Dec 2018 - Sep 2019

- MSc research project on motion synthesis algorithms for digital human animations.
- Developed a 3D editor, using OpenGL and ImGui, for creating and visualising character animations.
- Implemented the motion graph technique for generating novel animations using motion capture data.
- Received distinction grade (77%). Dissertation and code available on my [github page](#).