

Jie He

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Experiences

Product Developer

(Future Facilities Ltd, July 2021 – Present)

At an award winning CFD consulting firm/software provider for data centre and electronics simulation.

- Followed agile methodology, attending weekly meeting and working to two week sprints.
- Developed new features and fixes to the desktop based application using C++ and Qt.
- Attended numerous design meetings with internal engineers to gather requirements and workflow.
- Communicated with regional distributors and oversea offices for software translation and bug reports.

Key Achievements:

- A total of 155 Jira issues closed during 6 month probation period.
- Optimised Reporting module of the 6SigmaDCX suite. Achieved up to 8x faster report generation.
- Optimised CAD module and achieved 4x more responsive UI by using caching and async threading.

Development Tools:

C++, Qt, Visual Studio, SVN (version control), Tracy (profiling tool), Jira.

Computer Science Tutor

(University of Bath, Oct 2020 – May 2021)

- Provided remote programming supports to first-year students through Microsoft Team.
- Often review the works of the students to provide hints for their questions.

Technical Skills

Programming Languages:

Most Experienced: C/C++, Python

Some experience: Matlab, Java, C#.net, VB.net

Development Tools/Libraries:

Visual Studio, VS code, Jupyter, Jira, SVN, Blender, Tracy
QT, CGM Modeler, OpenGL, Pytorch

Education

MComp (Hons) Computer Science and Mathematics (First Class)

(University of Bath, 2017 – 2021)

Modules including: Parallel Computing, Data Structures, Artificial Intelligence, Machine Learning

Lilian Baylis Technology School

(2012 – 2017)

A Levels: Maths (A*), Physics (A*), Further Maths (A*), Computer Science (A)

11 GCSEs A-C including Maths, Double Science, and English.*

University Projects

Research Project – Stereo Image Matching (Python, Pytorch)

(University of Bath, 2021)

- Analysed various methods of training data generation and their effect on training the stereo network.
- Modified an existing data generation pipeline and improved the effectiveness of the synthesised data.
- Designed a lightweight stereo match neural network running at an average of 60 fps with low-end GPUs.

Team Bath Racing Electric – Perception (C++, OpenCV, Point Cloud Library)

(University of Bath, 2020)

- Created a Perception pipeline for autonomous vehicle where data streams from Stereo cameras and LiDAR sensors are used to extract the racetrack features.
- Incorporated various computer vision techniques, such as real-time object detection and point cloud object classification algorithms.
- Used 3D models to generate point cloud datasets to train the object detector.
- Represented Team Bath Racing Electric AI at Formula Student 2020 virtual event .