

Location	Job Title	Responsibilities	Requirements	Degree Qualification
Edinburgh	Database Research Engineer (Graduate Scheme) (Internship available)	<p>The Database team within the Huawei Edinburgh Research Centre researches and develops next generation transactional and analytical data management systems for Huawei and Huawei devices. As such, we are looking to recruit people with experience or interest in one or more of: query planning and optimisation, query execution engines, data storage and indexing engines, concurrency control mechanisms, hardware-software co-design, concurrent/parallel algorithms and data structures, distributed and/or decentralised systems and protocols, benchmarking and performance analysis, and programming/query languages and compilers.</p> <p>Key Responsibilities:</p> <ul style="list-style-type: none"> •Perform systems research and empirical science on current and future data management and processing systems. •Analyse and understand requirements for the next generation of database storage and query processing engines. •Design, implement, and deploy key technical building blocks for the next generation of data management and processing systems. •Explore and advance the latest data management and processing frameworks for both 	<p>Required:</p> <ul style="list-style-type: none"> •Have a solid computer science background. •Be comfortable with research methodology. •Be comfortable with system design and implementation. •Be data-driven. •Be proficient in one or more system-level programming languages (C/C++, Rust, etc.). •Be proficient in one or more of the areas specified in above Job Summary. •Have participated in the implementation of (aspects of) a database management system or systems of a similar low-level nature (e.g., operating systems, compilers etc.). <p>Desired:</p> <ul style="list-style-type: none"> •Have published papers at top peer-reviewed conferences or journals in fields related to the above (desired but not essential). 	PhD is preferred but not essential
Edinburgh	System Infrastructure Research Engineer (Graduate Scheme) (Internship available)	<ul style="list-style-type: none"> •Contribute to the research and development team's exploration of emerging technologies and systems. •Engage in team projects to conduct system design, analysis, and prototype development. •Play a role in selecting research problems, designing solutions, analysing results, and building prototypes to showcase the advantages and challenges of these technologies across various data center and cloud applications. •Design, implement, and evaluate key technologies and associated algorithms. •Actively engage with academia, industry, and open-source communities to establish influence and contribute to the broader technological landscape. 	<p>Required:</p> <ul style="list-style-type: none"> •Bachelors or Master's degree in Computer Science or a related technical field. •Be comfortable with research methodology. •Be comfortable with system design and implementation. •Have an in-depth understanding of operating systems and/or distributed systems and/or cloud computing. •Good programming skills, master of at least one language, such as C/C++, Go, Python etc. •Good communication and teamworking skills. <p>Desired:</p> <ul style="list-style-type: none"> •PhD in operating systems, distributed systems etc. •Published papers in top journals/conferences. 	PhD is preferred but not essential
Ipswich	R&D Design & Verification Engineer	<ul style="list-style-type: none"> •Develop R&D test rig prototypes (HW & SW) & test methodology •DC and RF verification testing/characterisation of early stage development devices and prepare and publish technical reports of finding/proposed improvements •Plan, develop & execute project-based test strategy •Engage with Design team to discuss and analyse specifications and define test plans. •Engage with supplier to buy off-the-shelf/customised solution to fit project requirements •Transfer test methodology to Backend team & support them during NPI phase 	<ul style="list-style-type: none"> •Recent PhD in physics or Engineering •Experience in optoelectronic device characterisation, DC and RF •Familiarity with software used for automated testing •Excellent data analysis and report writing skills 	PhD is preferred but not essential
Ipswich	Process Engineer	<ul style="list-style-type: none"> •Contribute to the process development roadmap to ensure that process capability and toolset stays at the forefront of technology and enables the product roadmap •Day to day operation owner of a defined process tool set. •Direct technicians/operators to process R&D and manufacturing wafers to meet schedules. •Develop, modify, and continuously improve manufacturing process and procedures to enable higher productivity, reduced scrap, and improved quality. •Setup and monitoring statistical process and control (SPC) charts. •Assist in creating building blocks within process modules. •Applying various statistical methods to improve reproducibility and manufacturability through Failure Mode Effect Analysis (FMEA), Control Plan and Gage R&R studies. •Document tool operation and process details and write standard of procedures (SOPs) 	<ul style="list-style-type: none"> •Experience with Process equipment and associated metrology tools. •Track record in using structured problem-solving techniques. •Master's Degree in relevant subject, Physics, Chemistry, Material Science, Chemical Engineering, Electronic Engineering etc. •Knowledge and experience of SPC processes. 	PhD is preferred but not essential
Ipswich	Test and Software Engineer	<ul style="list-style-type: none"> •Support & develop photonics test and measurement software •Support & develop data & results extraction reports software •Produce clean, efficient code based on project and user requirements •Verify and deploy version-controlled release packages •Troubleshoot, debug and upgrade existing software & tools •Create technical documentation for reference and reporting •Communicate and build software specifications based on customer requirements. •Provide professional levels of support to end users 	<ul style="list-style-type: none"> •Graduate or experienced software developer •Software languages & development environment skills - C++, C#, Visual Studio •Agile software development practices & source version controls •Candidate must possess good verbal and written communication skills •Python, Labview, SQL DB design and build 	PhD is preferred but not essential
Ipswich	Photonic PIC Design Engineer	<ul style="list-style-type: none"> •Design and/or contribute to the development of Photonic integrated circuits and discrete active photonic III-V components •Optoelectronic device design, in particular device mask design and waveguide/optical modelling. •Engage with Design and Fabrication team to discuss and analyse specifications and define mask set requirements and PDKs; automate the implementation of design rules. •Support external collaborative projects with Academic and Industrial institutions •Explore and analyse new directions for future applications of PIC technology •DC and RF verification of early stage development devices and prepare and publish technical reports of finding/proposed improvements 	<ul style="list-style-type: none"> •PhD in a relevant semiconductor/material or device design topic; •Knowledge of III-V optoelectronic device physics •Experience in Mask design/PDKs, TCAD software, Python/Nazca/Klayout or Equivalent •Experience of commercial optical waveguide software packages •Excellent data analysis and report writing skills 	PhD is preferred but not essential
Cambridge	Graduate CPU Architect	<ul style="list-style-type: none"> •Identifying CPU bottleneck via workload and CPU performance analysis •CPU functional and performance modelling to help CPU architecture exploration •Identifying the key missing technologies in the current architecture •Contributing to design & research methodologies to increase the efficiency and effectiveness <p>This job description is only an outline of the tasks, responsibilities and outcomes required of the role. The jobholder will carry out any other duties as may be reasonably required by his/her line manager. The job description and personal specification may be reviewed on an ongoing basis in accordance with the changing needs of Huawei Research and Development UK Limited.</p>	<ul style="list-style-type: none"> •PhD degree in Computer Science, Electrical & Electronic Engineering, Computer Architecture or related domains •Good knowledge of CPU architecture •Experience in CPU modelling •Good knowledge of Arm/RISC-V assembly languages •Excellent in C/C++ programming •Familiar with at least one of the ISAs: ARM, X86, RISC-V, MIPS, ARC <p>Desired:</p> <ul style="list-style-type: none"> •Hands-on experience with one or more of the following technologies: Vulkan, OpenGL, Metal, DirectX11 or 12 and/or OpenCL •Knowledge NN technologies 	Phd or Postgraduate
Cambridge	AI Processor Software & Hardware Co-design Engineer	<ul style="list-style-type: none"> •Be responsible for one of the sub technical direction of AI Processor Software & Hardware Co-design Lab, identify key root technologies related to NPU chips, develop evolution strategies and roadmaps, promote and implement the evolution strategies to build industry-leading technical competitiveness, support Huawei's business success in the computing field. •Carry out technology and business innovation, integrate several sub-domains of application algorithms, frameworks, runtime, modelling and simulation, and compilers from the perspective of processors, and build end-to-end architecture competitiveness. •Grasp the AI industry and technology trends, gain insight into the development direction of AI applications and algorithms, develop key technical architectures of basic AI software and hardware, and resolve key usability and performance issues in full-stack AI through technical projects. 	<ul style="list-style-type: none"> •Rich experience in optimizing AI chip architectures and AI systems, be familiar with mainstream heterogeneous computing software and hardware architectures in the industry, and have comprehensive capabilities from applications to basic software to chips. •Hands-on experience of one of the following technologies: Numerical Calculation, Compilation, Algorithm & chip co-design, Runtime, Shared Memory. •Knowledge of AI industry application scenarios, be familiar with mainstream models and algorithm development trends, and be able to extract requirements for the chip layer. •Proficient in key bottlenecks identification based on scenarios such as NLP and large models and key application algorithms to drive reasonable software architecture evolution. <p>Desired:</p> <ul style="list-style-type: none"> •Experience in software usability improvement projects. •Relevant experience in several sub-fields of AI application algorithms, frameworks, runtime, modelling and simulation, and compilers. •In-depth understanding of the innovative methods, platforms, and tools of AI head manufacturers, and have experience in transforming application and academic research achievements into commercial products. 	Phd or Postgraduate
Cambridge	Graduate-CPU/NPU Performance Modelling Engineer	<ul style="list-style-type: none"> •Develop simulation features to enable rapid architectural exploration and performance evaluation. •Engage in the investigation of cutting-edge, high-performance server CPU core and SOC architecture design, contributing vital data support for crucial decision-making processes. •Develop strategies for software/hardware co-optimization features and lead the integration of software and hardware components for the next generation processor. •Analyse and extract the distinctive features of real-world scenario workloads, delivering essential insights to our in-house chip development department. 	<ul style="list-style-type: none"> •Profound background in workload modelling and CPU architecture •Experience in developing and using performance simulators like GEM5 (O3 model), Sniper or others •Experience in developing using dynamic binary instrumentation infrastructures like QEMU or DynamoRIO or x86 PIN. •Proficient in benchmark analysis and characterization. •Skilled in performance projection and architectural exploration using SoC simulators. •Excellent collaboration and interpersonal skills •Considered as a plus •Knowledge of NPU/GPU architecture •Experience in simulator development for NPU/GPU 	Phd or Postgraduate

Cambridge	GPU Architecture/Algorithm Researcher	<ol style="list-style-type: none"> General algorithm and architectural feature research Modelling and simulation Feature and micro-architecture implementation trade-off. Real-time graphics algorithms or shader program design and optimization to improve performance, save bandwidth and power Performance/Power Tuning 	<p>Required:</p> <ul style="list-style-type: none"> PhD in relevant discipline Demonstrable knowledge of at least one of, graphics APIs and pipelines, GPU architectures, GPU computing, modelling and simulation, ray tracing or compiler technologies Self-motivated, well organized and good team player Good verbal and writing communication skill, great coding skill <p>Desired:</p> <ul style="list-style-type: none"> Hands-on experience with one or more of the following technologies: Vulkan, OpenGL, Metal, DirectX11 or 12 and/or OpenCL Knowledge NN technologies 	Phd or Postgraduate
London	LLMs(Large Language Models) Researcher	<ul style="list-style-type: none"> Carry out a literature review and investigate the state-of-the-art frameworks and models. Work on solving important challenges and conduct cutting-edge research in LLMs. Build benchmarks/baselines using public datasets. Finetune LLMs on novel, applicable and practical tasks. Model evaluation and refinement. Publish research papers at top-tier NLP/ML/AI conferences and journals. 	<p>Successful candidates should be/have</p> <ul style="list-style-type: none"> Creative and innovative. Able to convert an idea into a prototype efficiently, optimize its cost and drive the implementation. Excellent knowledge of existing LLMs. Result-driven with good communication skills; be able to work efficiently in a multi-cultural, multi-site, multi-language and changing environment. Excellent root cause analysis and problem-solving skills. Focused, pro-active and motivated. Open-minded and able to learn fast. Able to work autonomously and as part of a team of research and technical experts. Broad knowledge, be versatile and hands on. Demonstrated ability to generate new ideas and innovate. 	Phd or Postgraduate