

IPSI

In collaboration with Maxeler Technologies, London, UK



We're Hiring!

Join our Team and Work on some of Today's Grand Challenges

We are seeking for skilled and enthusiastic people to join our teams in Belgrade, Serbia; London, UK; Mountain View, CA; and Chicago, IL.

To apply, please e-mail your CV and cover letter to nemanja@maxeler.com, with the following subject: *Job Application for <Position>, <Full Name>*.

Careers

As a member of the Maxeler engineering team, you'll be working in a multi-disciplinary group of computer scientists, mathematicians, physicists, and computer/electrical engineers, building advanced products and services using dataflow computing in space (for the basic concepts see www.openspl.org).

Culture

You'll be a vital member of a team that tackles a wide range of challenging problems. While everyone has their own specialisms, Maxeler's engineers are able to multitask, often working on several projects at the same time, switching seamlessly between projects. As example covering all the way from implementing intricate optimizations down to creating teaching materials to help the DataFlow Engines (DFE) user community grow. We value people who will pitch in, doing whatever needs be done.

If you're excited about changing the way people do computing and enjoy challenging technical work, then Maxeler's environment will be a great fit for you.

At our Belgrade office, you will be a vital member of a small but rapidly growing team of highly talented software engineers. We value people who can focus on getting things done on their project, and are happy to pitch in doing whatever needs to be done.

Our Belgrade office is located in the heart of Belgrade, at Dalmatinska street.

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We work hard, but offer some flexibility on working hours with a focus on what you perform and not when you do it. We expect new hires to quickly rise to the challenge of taking responsibility, communicating efficiently across the company, and growing with tasks and projects as we grow the impact of Multiscale Dataflow Computing.

Since our R&D effort is concentrated in London, it is beneficial to be able to occasionally travel to London. A good command in English is an additional prerequisite.

We highly value diverse backgrounds and will consider all applicants equally, regardless of their race, color, sex, sexual orientation, age, religion, or belief.

IPSI is looking for candidates for the following positions:

Web Developer

Belgrade, Serbia (4 month internship program, full time employment)

The Belgrade Office is part of the Dataflow Software Engineering division, developing the web portals that are part of the Maxeler Eco-System.

See: appgallery.maxeler.com, www.maxeler.com, and webide.maxeler.com, all developed at the Belgrade Office

Activities include working on the existing as well as on the new Maxeler websites.

Ideal candidates will have experience in all of the following:

- Experience with HTML5 and CSS3
- Programming in JavaScript
- Programming in Python
- Degree or professional equivalent in Computer Science or other related discipline

Additionally, experience in any of the following would be advantageous:

- AngularJS framework
- Flask framework
- Design and usage of RESTful APIs
- Programming mobile phone applications (iOS, Android, etc.)
- Scripting experience (Python, Ruby, shell, etc.)
- Linux software development

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Multiscale Dataflow Computing Developer

Belgrade, Serbia (4 month internship program, full time employment)

London, UK (4 month internship program)

As a multiscale dataflow computing developer you will be using and developing the core concepts behind Multiscale Dataflow Computing and Spatial Programming (see: www.openspl.org for more details). Activities include: making DFEs easier and more enjoyable to program and use, through specialized APIs, visualization, cloud deployment, tutorial examples and interactive media.

Ideal candidates will have experience in all of the following:

- Programming in C/C++ or Java
- Acceleration and parallel programming technologies
- Library and API design hands-on experience
- Degree or professional equivalent in Mathematics, Physics, Engineering, Computer Science or other related discipline (*for full time position*)

Additionally, experience in any of the following would be advantageous:

- Familiarity with the Concepts of Controlflow and Dataflow
- Experience with Apache Thrift
- Linux software development
- Scripting experience (Python, Ruby, shell, etc.)

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Junior Application Engineer

Belgrade, Serbia (*4 month internship program, full time employment*)

London, UK (*4 month internship program*)

As a junior application engineer you will have opportunities to learn about various exciting applications of Maximum Performance Computing, such as risk analytics, network security, software defined networking, high-end transaction processing, computational chemistry, genomics, geoscience, computational biology and more.

Ideal candidates will have experience in all of the following:

- Object-oriented programming (Java, C++, etc.)
- Scripting experience (Python, shell, etc.)
- Linux software development
- A degree or equivalent professional qualification in Computer Science or a related discipline (*for full time positions*)

Additionally, experience in any of the following would be advantageous:

- Implementation-level knowledge of network protocols (IP, TCP, Ethernet, etc.)
- Digital hardware design (Verilog/VHDL, etc.)
- Computer architecture
- DSP/scientific/HPC software design including usage of accelerators

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Compiler Engineer

Belgrade, Serbia (4 month internship program, full time employment)

London, UK (4 month internship program)

The compiler team is responsible for developing Maxeler's state of the art, core compiler technology and software tools. The compiler team works closely with other engineers, scientists and mathematicians to help them overcome the challenges they encounter while developing high performance applications for Multiscale Dataflow Computers.

You will be adaptable and tenacious, passionate about documenting and testing the software you write, and have a keen interest in the future of high-performance computer architecture and compiler technology.

Ideal candidates will have experience in all of the following:

- Java, C and C++
- Object oriented programming
- Linux software development
- A degree or equivalent professional qualification in Computer Science or another related discipline (*for full time positions*)

Additionally, experience in any of the following would be advantageous:

- **Eclipse RCP plugin development**
- Postgraduate research (e.g. PhD, EngD, EU research projects, papers/journal articles)
- Software testing (e.g. GitLab CI, Jenkins CI)
- Compiler and/or EDA tool development (e.g. LLVM)
- Digital hardware design (e.g. Verilog/VHDL, FPGAs)

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Network Platform Architect

Belgrade, Serbia (4 month internship program, full time employment)

London, UK (4 month internship program)

Maxeler's Networking Technology group applies Dataflow Technology to computer networks. We create networking products with a programmable dataplane, such as our [joint switching product with Juniper](#), to perform online computation in real-time with the goals of maximizing throughput and minimizing latency. We're focused on Electronic Trading Systems, Cyber-Security and Network Infrastructure, see: <https://www.maxeler.com/products/jdfe/>.

We're on the lookout for a senior HW/SW architect, with a deep understanding of the networking domain, who is enthusiastic about creating the fastest and most advanced network computation engines on the planet.

Ideal candidates will have experience in all of the following:

- Strong software and hardware engineering knowledge and skills
- Experience with TCP/IP programming in Linux
- Thorough understanding of the complete Networking stack and other communication protocols such as PCI Express and Infiniband
- Detailed system level understanding from application to the physical layer
- At least 5 years of Software/Hardware Engineering experience
- Electrical Engineering, Computer Science or related degree

Additionally, experience in any of the following would be advantageous:

- FPGA technology and hardware description languages
- Electronic Trading, HFT
- Cyber-Security: Firewalls, IDS / IPS, Anomaly detection

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We're always on the lookout for bright people with a passion and enthusiasm for innovative technology and able to solve tough problems.

Ideal candidates will have experience in all of the following:

- Strong software and/or hardware engineering skills
- Linux software development in C/C++
- Scripting experience (Python, Perl, Ruby, etc)
- Programming experience with Ethernet, TCP/UDP/IP in Linux
- Excellent debugging skills
- A degree in Electrical Engineering, Computer Science, Mathematics, Physics or other related discipline

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FPGA/Hardware Engineer

London, UK (4 month internship program)

Maxeler's hardware team is responsible for designing our custom hardware platforms. Hardware engineers are responsible for our Multiscale Dataflow Computing systems and the MaxelerOS system of software libraries and on-chip IP such as memory controllers, bus controllers, etc that helps make Multiscale Dataflow computing a reality.

You will need a degree or equivalent professional qualification in Electronic Engineering, Computer Science or a related discipline and experience in digital circuit design, preferably using VHDL for FPGAs.

In addition, experience in any of the following would be advantageous:

- Multi-layer PCB design and debug with FPGAs
- High-speed digital design (e.g., QDR/DDR memory interfaces, PCI-Express, 10G Ethernet, Infiniband)
- Product design and test experience (e.g., EMC Compliance and Certification)
- Systems/device driver programming for Linux in C
- Knowledge of object-oriented software techniques in Java or C++

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Systems Administrator

London, UK

At Maxeler, Systems Administrators both support our internal development teams, and contribute to customer deployments of our advanced systems. In this role you will be exposed to and expected to work with a wide range of infrastructure from standard IT products used in a software/hardware engineering environment to Maxeler's own unique, state-of-the-art dataflow technology.

The role is very varied, but will include:

- Building and modifying bespoke hardware systems
- Setting-up and deployment of virtual machines, workstations, and servers
- Providing general technical support
(mainly for Linux but also for some Windows 7 and OS X)
- Developing and maintaining internal systems automation infrastructure
- A focus on delivering IT solutions that quickly meet concrete business objectives

Specific technology experience which would be highly valuable include:

- Experience with Red Hat Enterprise Linux or CentOS 5/6
- Experience with networking, configuring switches, etc.
- Experience with Linux Containers
- Experience with Continuous Integration Systems (Jenkins, GitLab CI, Travis CI, etc.)
- Knowledge of at least one scripting language (Bash, Python, etc.)
- Familiarity with Citrix XenServer/VMWare/KVM virtualisation technology
- Strong interest in high performance computing systems

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