General Secretariat (GS)

Geneva, 10 November 2026

E-mail: HRerecruit@itu.int

To the Director-General

Circular letter No. 26/52

Subject: **VACANCY NOTICE No. 2454P-2026/BR-IAP/EXTERNAL/P3 "Software Engineer"**

Dear Madam, Dear Sir,

The post described in the Annex is to be filled at ITU Headquarters.

The relevant job description with the qualifications required, as well as all other useful information, is annexed hereto.

Administrations are requested to circulate vacancy notices to all potential sources of recruitment including universities, institutes, associations of engineers and the private sector as the case may be.

I would be grateful if Administrations would invite qualified candidates and especially women candidates to apply for the above position not later than 11/01/2027 on ITU career website:

Software Engineer

The Plenipotentiary Conference adopted the Resolution 48 (Rev. Dubai 2018), affirming that: "...when filling vacant posts by international recruitment, in choosing between candidates who meet the qualification requirements for a post, preference shall be given to candidates from regions of the world which are under-represented in the staffing of the Union, taking into account the balance between female and male staff mandated by the United Nations common system;".

Yours faithfully,

Doreen Bogdan-Martin

Secretary-General

Annexes: **VACANCY NOTICE No. 2454P-2026/BR-IAP/EXTERNAL/P3 "Software Engineer"**

Job Title: Software Engineer

INTERNATIONAL TELECOMMUNICATION UNION

ITU is the leading United Nations agency for information and communication technologies, with the mission to connect the world. To achieve this, ITU manages the radio-frequency spectrum and satellite orbits at the international level, works to improve communication infrastructure in the developing world, and establishes global standards that foster seamless interconnection of a vast range of communication systems.

ITU applies a zero-tolerance policy against all forms of harassment. ITU is committed to diversity and inclusion within its workforce, and encourages all candidates, irrespective of gender, nationality, religious and ethnic backgrounds, including persons with disabilities, to apply to become a part of the organization. Achieving gender balance is a high priority for ITU.

Software Engineer

Vacancy notice no: 2454
Sector: BR
Department: IAP
Country of contract: Switzerland
Duty station: Geneva

Position number: R24/P3/584
Grade: P3
Type of contract: Fixed-term
Duration of contract: 2 years with possibility of extension
Recruitment open to: External
Application deadline (Midnight Geneva Time): 11 January 2027

ORGANIZATIONAL UNIT

The Radiocommunication Bureau (BR) is responsible for the application of the Radio Regulations and for technical and administrative support of ITU World and Regional Radiocommunication Conferences, Radiocommunication Assemblies and Study Groups. The Bureau also carries out the international regulatory processes for registration of frequency assignments and satellite orbits and assists administrations in their coordination and implementation of frequency spectrum and orbit requirements as well as in resolving cases of harmful interference. It provides the specialised technical secretariat for the work of the Radiocommunication Study Groups and the Radiocommunication Assembly in the development of recommendations for spectrum utilisation and radio system characteristics. The BR is organised into four Departments: Space Services Department, Terrestrial Services Department, Informatics, Administration and Publications Department and the Study Groups Department.

The Informatics, Administration and Publications Department (IAP) comprises of four Divisions: Space Applications Software (SAS), Terrestrial Applications Software (TAS), Common Software Platform Division (CSP) and Business Operations and Planning Division (BOP). The Department is responsible for the development and maintenance of software and related tools used by the BR as well as software adapted for national frequency management units, providing the necessary user support for the areas concerned. It carries out studies related to policies for the technologies to be used for the information and computational systems within the BR and with administrations in the fields of management of the radio frequency spectrum and the various satellite orbits. The Department is responsible for managing all aspects of the BR's operations, including the development of BR operational plans, organizational support of ITU-R conferences and meetings, BR project management processes and procedures, BR text editing and publications, as well as promotion and membership. The Department is also responsible for human resources management and planning for the BR.

ORGANIZATIONAL CONTEXT

The post is located in the Common Software Platform Division (CSP) of the Informatics, Administration and Publications Department (IAP), Radiocommunication Bureau (BR). The incumbent contributes to the design, development, modernization and operation of software supporting the technical examination of frequency assignment notices and related regulatory processing, in accordance with the Radio Regulations and applicable ITU-R Recommendations. The incumbent works under the supervision of the Head of the Common Software Platform Division.

DUTIES AND RESPONSIBILITIES

- Design, develop and deliver complete applications end-to-end web and/or desktop clients, back-end services, APIs, and data stores from requirements gathering with domain experts through documented production deployment.
- Maintain, troubleshoot and optimize existing applications across the full stack, including performance-critical and numerical components, writing targeted automated tests to isolate defects and deliver verifiable fixes.
- Modernize legacy technical-examination codebases (including scientific code in Fortran and older C/C++) toward cloud-ready, platform-independent and open-source technologies leveraging AI-assisted code conversion where appropriate and verify numerical equivalence of migrated components through differential and regression testing against reference result sets.
- Build, deploy, and operate cloud-native services on the cloud platforms supported by ITU and in hybrid cloud/on premises environments, applying containerization and orchestration (Docker/Kubernetes), CI/CD automation, and secure handling of data, secrets and access, and monitoring applications in production across Windows and Linux.
- Apply AI across the engineering lifecycle AI-assisted coding, testing and documentation, and integration of AI capabilities (e.g. LLM APIs, agentic workflows) into applications where they add value with rigorous human review, verification and attention to correctness and data sensitivity.
- Implement and optimize computationally intensive algorithms, including concurrent, parallel and asynchronous processing, with attention to numerical accuracy and reproducibility of results across platforms, compilers and math libraries.
- Collaborate with fellow software engineers, radiocommunication domain experts and test engineers; review code; apply and uphold engineering best practices; and provide documentation, knowledge transfer and training to the team.
- Perform other related duties as assigned.

CORE COMPETENCIES

Applying Expertise; Effective Communication; Learning and Knowledge Sharing; Organizational Commitment; Results-Focused, and; Teamwork and Collaboration.

FUNCTIONAL COMPETENCIES

Analysis, Judgement and Decision Making
Client and Service Orientation
Innovation and Facilitating Change
Planning and Organising

TECHNICAL COMPETENCIES

Core engineering (essential):

- Strong command of modern software engineering and architecture for scalable, maintainable applications, in C#, C++, Python and/or TypeScript.
- Good skills in algorithms, data structures and performance-critical code, including concurrent, parallel and asynchronous programming, with sound understanding of numerical computation (floating-point

behaviour,
accuracy, reproducibility).
- Full-stack proficiency: back-end services and APIs, and the front ends that consume them (modern HTML/CSS with a JavaScript/TypeScript framework such as React, and/or a modern desktop UI framework); solid
command of SQL and relational data modelling.

Cloud, delivery and operations (essential):
- Working knowledge of containerization (e.g. Docker) and cloud-native design; familiarity with orchestration (e.g. Kubernetes) and hybrid cloud/on-premises architectures.
- Disciplined version control and automated testing (unit, integration and regression) and familiarity with CI/CD automation.
- Awareness of secure development practices and sound handling of data, credentials and access; ability to deploy and monitor services on Windows or Linux.
- Practical use of AI-assisted development tools (e.g. coding agents/assistants) with sound judgment in verifying AI-generated code.

Advantageous:
- Verification of numerical results against reference data sets; scientific/math libraries and techniques for high performance or computationally intensive software in C++ or on .NET.
- Computationally intensive algorithms on GPUs (e.g. CUDA, OpenCL, or GPU-accelerated libraries).
- Integration of AI/LLM services into applications (e.g. LLM APIs, agentic workflows)
- Message brokers or workflow engines; document/NoSQL databases or semi-structured data (e.g. JSON in relational databases).

QUALIFICATIONS REQUIRED

Education:
Advanced university degree in computer science, information systems management, engineering or science or a related field OR education from a reputed college of advanced education with a diploma of equivalent standard to that of an advanced university degree in one of the fields above.
For internal candidates, a first university degree in one of the fields above in combination with seven years of qualifying experience may be accepted in lieu of an advanced university degree for promotion or rotation purposes.

Experience:
At least five years of progressively responsible experience primarily in software analysis, design, development and programming, in the implementation of technical applications, including at least two years at the international level, comprising:
- Demonstrated experience delivering complete, production-grade applications end-to-end (web and/or desktop with their back-end services), from requirements gathering through documented production deployment.
- Experience building or operating services on a major cloud provider (e.g. Azure, AWS) and running them in production.

The following would be an advantage:
- Experience migrating legacy scientific or engineering code (e.g. Fortran, older C/C++) to modern open-source technologies, including AI-assisted conversion and the verification practices it requires.
- Experience in software development for radiocommunication engineering applications, spectrum engineering, or scientific/engineering computation, or demonstrated ability to rapidly absorb complex, regulated technical domains.

A Doctorate in a related field can be considered as a substitute for two years of working experience. A Doctorate in a related field can be considered as a substitute for two years of working experience.

Languages:
Knowledge of one of the six official languages of the Union (Arabic, Chinese, English, French, Russian, Spanish) at advanced level and knowledge of a second official language at intermediate level. Knowledge of a third official language would be an advantage. (Under the provisions of Resolution No. 626 of the Council, a relaxation of the language requirements may be authorized in the case of candidates from developing countries: when candidates

from such countries possess a thorough knowledge of one of the official languages of the Union, their applications may be taken into consideration.)

BENEFITS AND ENTITLEMENTS

Salary:

Total annual salary consists of a net annual salary (net of taxes and before medical insurance and pension fund deductions) in US dollars and a post adjustment (PA) (cost of living allowance). The PA is variable and subject to change without notice in accordance with the rates set within the UN Common System for salaries and allowances.

Annual salary from **$ 71,335** + post adjustment **$ 59,707**

Other allowances and benefits subject to specific terms of appointment, please refer to: What We Offer

INFORMATION ON RECRUITMENT PROCESS

Please note that all candidates must complete an on-line application and provide complete and accurate information. To apply, please visit the ITU Careers website. The evaluation of candidates is based on the criteria in the vacancy notice, and may include tests and/or assessments, as well as a competency-based interview. ITU uses communication technologies such as video or teleconference, e-mail correspondence, etc. for the assessment and evaluation of candidates. Please note that only selected candidates will be further contacted and candidates in the final selection step will be subject to reference checks based on the information provided. Messages originating from a non ITU e-mail account - @itu.int - should be disregarded. ITU does not charge a fee at any stage of the recruitment process.