

Carnegie Mellon University

Africa

Job title	Instructor – Technical skills (Bridge)
Terms	Fixed Term
Start Date	<i>30 September 2024</i>
Location	<i>Kigali, Rwanda</i>

Job Purpose

Carnegie Mellon University Africa (CMU-Africa) is seeking instructors to deliver technical Skills lessons on our Bridge Program. The aim of this program is to encourage undergraduate students with a background in technology to consider applying for graduate programs at CMU Africa or elsewhere. Course syllabi and instructional materials will be provided. The successful candidate will thrive on working under their own initiative to deliver an intensive program as part of a team of instructors.

About Carnegie Mellon University

Established out of a partnership between Carnegie Mellon University (CMU) and the Government of Rwanda, CMU-Africa is addressing the critical shortage of high-quality engineering talent required to accelerate the economic development and digital transformation of Africa—home to the fastest growing workforce in the world. CMU-Africa was established in 2011 and is the only U.S. research university offering its master’s degrees with full-time faculty, staff and operations in Africa. CMU’s presence in Rwanda provides a platform to engage in Africa’s most significant opportunities and challenges across the continent through world-class education and contextually relevant research.

Our vision is to educate and empower the next generation of African leaders and innovators by delivering a world-class educational experience. CMU-Africa’s mission is to produce creative and technically strong engineers, who have been trained in the African context, and prepared to make transformative impact in their communities and the world.

We are a fast-growing campus with about 230 enrolled students, aiming to grow to 400 in the next couple of years. Our size and exponential growth create a sense of camaraderie and excitement, with strong community ties and a compound sense of accomplishment in our team members, contributing towards mutually beneficial relationships between staff and students.

About the Bridge Program

The Bridge Program is designed to encourage undergraduate students in technology to consider applying for graduate programs at CMU Africa or elsewhere. We currently offer two six-week courses per year, in the Fall and Spring semesters. Students attend in the evening five days a week and study a combination of programming and academic skills to complete a project. The students also get advice on how to submit a successful application to a graduate program. We are pleased to report that several students who have completed Bridge are now studying for an MSc at CMU-Africa and elsewhere. Furthermore, there are several exciting projects in the pipeline including offering the program at other universities, within Rwanda and beyond.

The Role

The successful candidate will be responsible for delivering the technical Skills component of our successful Bridge Program to one or more classes at CMU-Africa. This is a fixed-term contract (September-December 2024) but may be open to extension. At present all classes take place at the CMU-Africa campus in Kigali but we hope to offer the course in other parts of Rwanda soon.

Technical skills aim to impact students by significantly enhancing their critical thinking and problem-solving enabling students to apply theoretical knowledge to real-world scenarios effectively. This course is designed to nurture innovation and foster a culture of creativity. The successful candidate will Assist the principal instructor preparing teaching materials, conducting lectures, guide students for project implementation. Assist in providing feedback on intermediate stages of the project. Provide information on useful resources and be involved in grading final projects.

Responsibilities

- Design, develop and deliver learning materials for technical courses.
- Lead the selected project for enhancing hands-on skills.
- Provide regular and timely developmental feedback to the students
- Supervise teaching assistants and coordinating their work supporting and grading students.
- Evaluate students at the end of each project milestone, reporting on their progress
- Undertake an end-of-program evaluation and provide feedback and recommendations as necessary.
- Maintain course attendance records.

Qualifications

EDUCATION AND EXPERIENCE

The ideal candidate will be an experienced University instructor with a professional background in engineering and demonstrating a range of relevant skills and experience. They will be self-motivated and able to work both independently and as part of a team. They must enjoy the challenge of working with new students and with minimal supervision.

ESSENTIAL

- Experience teaching Computer programming languages and Object-Oriented concepts and programming
- Familiar with Linux systems
- Experience in designing and developing IoT projects
- An interactive, student-centered approach that fosters learner autonomy, motivation, collaborative learning, and critical thinking skills.
- Enjoys working collaboratively with other teaching staff and has strong interpersonal and teamwork skills.
- Self-driven and comfortable working with minimal direction.
- Willing to travel (if required).

DESIRABLE

- Experience teaching computer programming languages.
- Experience in supervising Engineering or IT projects
- Experience of teaching and collaborating effectively across different cultures.
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- Experience with project-based learning.

SKILLS AND COMPETENCIES

- Proven ability to use Canvas or other learning management systems (LMS).
- Enthusiasm and a creative, fun and energetic approach.
- Enjoys working collaboratively with other teaching staff and has strong interpersonal and teamwork skills.
- Self-driven and comfortable working with minimal direction.

Are you interested in this exciting opportunity with an exceptional organization!!

Don't miss the opportunity to explore exciting career possibilities at CMU-Africa. Visit our career page: <https://www.africa.engineering.cmu.edu/about/careers.html> before September 15, 2024, for detailed application guidelines and to submit your application.