Nov 10, 2020

**Program-Specific Researcher Position (Postdoctoral Fellow) at Graduate School of Informatics, Kyoto University**

We are seeking a postdoc researcher who collaborates with us in the project "CyPhAI: Formal Analysis and Design of AI-intensive Cyber-Physical Systems" funded by JST. This project aims at establishing mathematically-solid methodologies to model, verify, test, monitor, and control a cyber-physical system in which AI plays crucial role (AI-CPS). A successful candidate will work with Kohei Suenaga (Kyoto University, Kyoto, Japan). The contract will initially run until the end of March 2021, with the possibility of annual renewal at maximum 5 years.

The main research topic will be learning for AI-CPS and verification of AI-CPS. The expected research topic includes (but is not limited to) the following: (1) application of machine learning to synthesize the design of AI-CPS, (2) efficient machine learning for AI components in AI-CPS, and (3) (quantitative/statistical) model checking for AI-CPS.

**Job title**: Program-Specific Researcher (Postdoctoral Fellow)

**Number of position**: 1

**Job description:** You will pursue your research agenda in line with the project's goal of applying formal methods to manufacturing. You need a Ph.D. degree (or to be close to completion) and a proven publication record. The experience of active interdisciplinary collaboration is highly desirable. The annual gross salary is determined according to the rules of Kyoto University based on your qualifications. Insurances are covered according to the rules of the hiring institutions.

**Required qualification:** A successful candidate must meet the following qualification.

- He/She must have a Ph.D. degree or must be very close to its completion.
- He/She must be (self-)motivated, dedicated, open-minded, and able to work both independently and collaboratively.
- He/She must have strong communication skills in oral/written English due to the international and interdisciplinary nature of our project.
- He/She must be an expert of one or more among the following areas:
  - formal verification and/or testing of software and/or hybrid systems; especially statistical model checking and quantitative model checking

- verification and/or testing of machine-learning systems

**Starting date:** December 1st, 2020 or later
**Contract term**: 1 year, with the possibility of extension up to 5 years. We may consider longer-period contract depending on the performance of applicants.

**Probation period:** 6 months

**Working conditions:** Working hours: 38 hours 45 minutes per week under a flexible-hours system.

**Salary and benefits:** To be determined in accordance with the existing employment regulations of Kyoto University.

**Social insurance:** Eligible for MEXT* mutual aid association membership, employees' pensions, employment insurance, and workers' compensation insurance. *Ministry of Education, Culture, Sports, Science and Technology of Japan

**Application and inquiry:**
Applications should be sent via email to application-cyphai [at] fos.kuis.kyoto-u.ac.jp, with the subject "CREST Job Application". Please include

- your brief CV,
- short description of research interests (can be very informal and short),
- the list of papers (a dblp or Google scholar link will do, for example),
- a couple of representative papers (in pdf), and
- (preferably) the contact of two references.

**Application deadline**: Open until the position is filled.

We will contact you for further material and interview, provided that we find sufficient relevance in your application. Starting dates are flexible. The positions will remain open until filled. The project ends in March 2026.

Inquiries should also be sent via email to application-cyphai [at] fos.kuis.kyoto-u.ac.jp with the subject "CREST Job Inquiry".

**Others:**

Personal information that is provided in an application will not be used for any other purpose than screening for employment.

At Kyoto University, smoking indoors is prohibited and smoking outdoors is prohibited except for designated smoking areas in order to prevent secondhand smoke.