NTNU
Kunnskap for en bedre verden

The Department of Computer Science has a vacancy for a

Postdoctor in Security and Privacy of Blockchain

This is NTNU
At NTNU, creating knowledge for a better world is the vision that unites our 7 400 employees and 42 000 students.

We are looking for dedicated employees to join us.

You will find more information about working at NTNU and the application process here.

Video: https://www.youtube.com/watch?v=cIgKd1SwGLI

About the position
The Faculty of Information Technology and Electrical Engineering at the Norwegian University of Science and Technology (NTNU) has a vacancy for a Postdoc fellowship at the Department of Computer Science (IDI). The position will research the security and privacy issues of blockchain and blockchain-based applications.

The position is funded by PaaSforChain (Platform as Service Technologies for High-performance Blockchain-based Supply Chain Management Systems) project, hosted by NTNU IDI. The PaaSforChain project is a Chinese-Norwegian Collaborative Project on Digitalisation financed by the Research Council of Norway and the Ministry of Science and Technology of the People's Republic of China.

The Norwegian partners in this project include NTNU, SINTEF Digital, DNV GL, and Hermes AS, and the Chinese partners include Tsinghua University, Nanjing University. Southeast University, and two Chinese companies. The project objectives include studying core technological, ethical, social, and cultural issues of using blockchain and other related IT technologies to develop blockchain-based supply chain applications, especially for the seafood industry, and studying core IT technologies, such as architecture, security, performance, and scalability of developing a supply chain domain-specific PaaS platform.

The position reports to the Head of the Department.

The postdoctor will be supervised by Assoiciate Professor Jingyue Li.

Duties of the position
• Perform research on security and privacy issues of large-scale blockchain-based supply chain management systems.
• Contribution in supervising Ph.D. and Master students who have similar research focuses.
• Contribution in managing the PaaSforChain project

The research and development will mainly take place in NTNU IDI in Trondheim, Norway. The Postdoc will have the possibility to do short-term visiting research at the universities and companies in Norway and China. The Postdoc will also have the opportunity to participate in other relevant research activities through our collaborators worldwide.

Required selection criteria
A postdoctoral research fellowship is a qualification position in which the main objective is qualification for work in academic positions. You must have completed a Norwegian doctoral degree in **computer science or information security**, or corresponding foreign doctoral degree recognized as equivalent to a Norwegian doctoral degree is required.

If, for any reason, you have taken a career break or have had an atypical career and wish to disclose this in your application, the selection committee will take this into account, recognizing that the quantity of your research may be reduced as a result.

The appointment is to be made in accordance with the regulations in force concerning State Employees and Civil Servants and national guidelines for appointment as PhD, post doctor and research assistant.

The qualification criteria for this position are as follows:

• A Ph.D. thesis
• The applicants should have a strong research background in security and/or data privacy aspects of blockchain
• The research statement shows that the applicant understands blockchain security or data privacy challenges well
• Good English skills are required

In evaluating candidates who are qualified, we will emphasize the following preferred selection criteria and personal suitability.

Preferred selection criteria

• Publications in top venue scientific conferences and/or journals
• Experience in developing blockchain-based applications
• Experience in participation to research applications and projects

Personal characteristics
• Ability to work and think independently
• Enthusiasm and passion
• Perseverance and commitment
• Critical thinking

We offer
- exciting and stimulating tasks in a strong international academic environment
- an open and inclusive work environment with dedicated colleagues
- favourable terms in the Norwegian Public Service Pension Fund
- employee benefits

Salary and conditions
The employment period is 2 years without duty work and is expected to start from Spring 2021.

Postdoctoral candidates are placed in code 1352, and are normally remunerated at gross from NOK 545 300 per annum before tax, depending on qualifications and seniority. From the salary,
2% is deducted as a contribution to the Norwegian Public Service Pension Fund.

The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criteria in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

The position is subject to external funding by the PaaSforChain project .

It is a prerequisite you can be present at and accessible to the institution on a daily basis.

About the application
The application and supporting documentation to be used as the basis for the assessment must be in English.

Please note that applications are only evaluated based on the information available on the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above.

Joint works will be considered. If it is difficult to identify your contribution to joint works, you must attach a brief description of your participation.

The application must contain the following:

- Curriculum vitae (CV) with information about the candidate's prior training, exams, and work experience
- Certified copies of transcripts and diplomas for the whole bachelor and master, and Ph.D. degrees. An English translation of all education documents is required unless the documents are in Norwegian
- Research statement (at least. 4 pages) including:
  - A summary of the point below
  - A short presentation of the motivation for the Postdoc study
  - How the applicant sees his/her background suitable
  - The applicant's view of research challenges within security and privacy issues of blockchain-based application, in particular, what are typical security and privacy risks of blockchain-based applications and how to identify and mitigate the risks.
  - How the competence of the applicant can contribute to solving these challenges
  - A proposed research plan, which should include appropriate research methods and/or theories, could be relevant to examine the security and privacy issues of blockchain-based applications.
- Names and contact information of at least 2 reference persons
- Four scientific papers published in the last five years
- Ph.D. thesis
- Attachments of any other relevant documents (e.g., awards)

Incomplete applications will not be considered.

General information

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background.

The city of Trondheim is a modern European city with a rich cultural scene. Trondheim is the innovation capital of Norway with a population of 200,000. The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the world. Professional subsidized day-care for children is easily available. Furthermore, Trondheim offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life and has low crime rates and clean air quality.

As an employee at NTNU, you must at all times adhere to the changes that the development in the subject entails and the organizational changes that are adopted.

Information Act (Offentleglova), your name, age, position and municipality may be made public even if you have requested not to have your name entered on the list of applicants.

If you have any questions about the position, please contact Associate Professor Jingyue Li, telephone +47, 91897446, email jingyue.li@ntnu.no, or the Head of the Department Professor John Krogstie, e-mail: john.krogstie@ntnu.no.

Please submit your application electronically via jobbnorge.no with your CV, diplomas and certificates. Applications submitted elsewhere will not be considered. Diploma Supplement is required to attach for European Master Diplomas outside Norway. Chinese applicants are required to provide confirmation of Master Diploma from China Credentials Verification (CHSI).

If you are invited for interview you must include certified copies of transcripts and reference letters. Please refer to the application number 2020/10414 when applying.

Application deadline: 15.01.21

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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

Department of Computer Science

We are the leading academic IT environment in Norway, and offer a wide range of theoretical and applied IT programmes of study at all levels. Our subject areas include hardware, algorithms, visual computing, AI, databases, software engineering, information systems, learning technology, HCI, CSCW, IT operations and applied data processing. The Department has groups in both Trondheim and Gjøvik. The Department of Computer Science is one of seven departments in the Faculty of Information Technology and Electrical Engineering .

Additional information

Place of service:
Campus Gløshaugen 7491 Trondheim (Trondheim Municipality)