HAO XUAN

(785)-979-4578
Lawrence, KS, USA 66049
xuan13hao@ku.edu

EDUCATION

University of Kansas, USA *2020.01-Current*
Ph.D. in Computer Science GPA: 3.67/4
Department of EECS

Capital Normal University, China *2015.09-2018.06*
Master in Computer Technology GPA: 3.41/4
College of Information and Engineering

Yantai University, China *2010.09-2014.06*
Bachelor of Computer Science and Technology

RESEARCH AREA

Bioinformatics and computational biology: algorithms and data structure

EXPERIENCES

Department of EECS, University of Kansas 2021.08-Current
Graduate Teaching assistant

Implementing EECS 560 lab sessions. Grading the assignments and exams of EECS 560 students

Department of EECS, University of Kansas 2020.01-2021.07
Graduate Research assistant

Develop a multi-purpose aligner for short and long nucleotide and peptide sequences mapping.

Lab of Intelligent Information Processing, Institute of Computing Technology, Chinese Academy of Sciences, Beijing, China 2017.07-2018.01
Guest Graduate student

Research on clinical terms categorization and construction of medical ontology.

Joint Faculty of Computer Scientific Research, Capital Normal University & Institute of Computing Technology, Chinese Academy of Sciences, Beijing, China 2015.09-2017.05
Graduate student

Research on a security mechanism based on Space Operating System, guided by Dr.Jingang Liu.

PUBLICATIONS

1, Woolbright, Benjamin L., Erika Abbott, Ganeshkumar Rajendran, Cuncong Zhong, Hao Xuan, Shahid Umar, and John Arthur Taylor. "Intersection of aging, the microbiome and inflammation in a mouse model of bladder cancer." (2021): 2911-2911.(collaborative work)

2, Chavez-Bueno, Susana, Hao Xuan, Shahid Umar, Concong Zhong, Wei Yu, and Venkatesh Sampath. "Neonatal Gut Microbiota Alterations and Local Inflammation Induced by Escherichia coli Infection are Modified by Lactobacillus rhamnosus Prophylaxis." (2021). (collaborative work)

3, Liu, Hongyi, Xuan Hao, and Liu Jingang. "Multi-level Reliable Security Mechanism Based on SpaceOS." 2019 International Conference on Computer, Information and Telecommunication Systems (CITS). IEEE, 2019.

PROJECTS

The Versatile Alignment Tool (VAT) 2020.06-Current

Develop a multi-purpose aligner for short and long nucleotide and peptide sequences mapping.

Overlay Security Mechanism Based on Space Operating System 2016.11-2018.03

A security mechanism, which is secure and practical, is proposed, basedon Space Operating System. Firstly, the system security domain is divided,and the requirement of security mechanism is defined. The design idea ofsecurity mechanism is put forward, and the security requirement is provedby formal method. Then the feasibility of the technology is explained byoverlay file system, and the security mechanism is applied to the Space OS.

Fingervein Login Security Mechanism Based on Space Operating System 2016.01-2016.09

Aiming at the security problem of password authentication login in traditional operating system, based on the finger vein recognition technology, a secure and reliable identity authentication system is designed and implemented on the Space OS platform through the deep customization of open source project SDDM and the PAM authentication mechanism. GitHub (https://github.com/xuan13hao/VeinLogin)

RedCMS 2013.01-2014.01

A Content Management System, which was named as RedCMS, was opened. It combines some designs' advantages of current mainstream frameworks, such as SpringMVC, Hibernate and freemarker, based on Spring. This CMS is small, useful and powerful. This system allows users to publish and manage websites more simply and quickly. GitHub(https://github.com/xuan13hao/CMS)

Desktop Conference System 2012.06-2013.01

A desktop sharing system is implemented. First, getting the data flow of the camera device, and dividing, annotating and encrypting the data separately. Then, the encrypted data is encapsulated. Restructuring a TPC/IP with the encrypted data. The data is transmitted by using the reliability of TCP/IP. Finally, the data are combined and decrypted. GitHub (https://github.com/xuan13hao/RemoteChat).