Jiapeng Chi

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Education

- Ph.D, Computer Science — University of Central Florida, Orlando, USA
  GPA: 3.81, 2017 - Present
- Bachelor of Science, Computer Science — Beijing Institute of Technology, Beijing, China
  GPA: 3.2, 2012 - 2016

Experience

RESEARCH ASSISTANT, VARLAB, UCF, ORLANDO, FL — JAN 2020 - PRESENT

- Designed and developed RA360SR, a real-time acceleration-adaptive 360-degree video super-resolution system with Unity3D.
- Developed a structural health monitoring system of a foot bridge in virtual reality environment.
- Implemented a real-time avatar pose estimation program with webcams and depth cameras, and added support for multiple platforms.
- Participated in Siemens digital twin project, added support for green screen and Magnetic3D autostereoscopic TV, and developed a Six-Degrees-of-Freedom control system with 3Dconnexion space mouse.
- Built a UCF virtual campus trip smart phone application with Google cardboard SDK.

RESEARCH ASSISTANT, COMPUTER ARCHITECTURE AND STORAGE SYSTEM LAB, UCF, ORLANDO, FL — MAY 2018 - DEC 2019

- Participated in designing and developing a new structure of prefetch and cache system based on deep learning.
- Applied Long short-term memory (LSTM) to enable cache prefetching to optimize flow table update efficiency in Software Defined Network (SDN) switches.

RESEARCH ASSISTANT, BIOINFORMATICS AND SYSTEMS BIOLOGY LAB, UCF, ORLANDO, FL — AUG 2017 - MAY 2018

- Implemented the miRNA promoter prediction project with Naive Bayes classifier and Support Vector Machines (SVM), achieved numerous correlations between miRNA features.

SOFTWARE DEVELOPER, HOLLYCRM SOFTWARE, BEIJING, CHINA — OCT 2016 - JUN 2017

- Worked on the project of intelligent online customer service audio recognition system, and took charge of distributed text classification module with Solr and Elasticsearch.

VOLUNTEER, DIGITAL PERFORMANCE AND SIMULATION TECHNOLOGY LAB, BEIJING, CHINA — SEP 2014 - JUN 2016

- Participated in the design and development of a new framework for long-term robust tracking.

Skills

- C#, Python, Java, C++, C, HTML, CSS, Javascript
- Unity3D, Unreal, Git
- SteamVR SDK, Google Cardboard SDK, Oculus SDK, PyTorch, Tensorflow, Deeplearning4j

Publications

- Chi, Jiapeng, Dirk Reiners, and Carolina Cruz-Neira. "RA360SR: A Real-time Acceleration-adaptive 360-degree Video Super-resolution System." In 2022 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct), pp. 202-206. IEEE, 2022.
- Luleci, Furkan, Liangding Li, Jiapeng Chi, Dirk Reiners, Carolina Cruz-Neira, and F. Necati Catbas. "Structural Health Monitoring of a Foot Bridge in Virtual Reality Environment." _Procedia Structural Integrity_ 37 (2022): 65-72.
- Li, Liangding, Jiapeng Chi, and Jun Wang. "Applying LSTM to enable cache prefetching to optimize flow table update efficiency in SDN switches." In *Proceedings of the 2019 7th International Conference on Information Technology: IoT and Smart City*, pp. 126-130. 2019.
- Tang, Shuo, Longfei Zhang, Jiapeng Chi, Zhufan Wang, and Gangyi Ding. "Adaptive multiple appearances model framework for long-term robust tracking." In _Pacific Rim Conference on Multimedia_, pp. 160-170. Springer, Cham, 2015.