Chang, Zhangyu

Address   Room 7-9-202, 3333 Qixin Road, Minhang, Shanghai, China

Mobile Phone   +852 66049839 (Hong Kong)
+86 13764286186 (China)

Email   changzhangyu@hotmail.com
zchang@cse.ust.hk

Chang, Zhangyu received his Ph.D. and M.Phil. degrees in Computer Science and Engineering in 2015 and 2023, respectively, from the Hong Kong University of Science and Technology (HKUST) in Hong Kong. He also earned his B.Sc. degree with highest honors in Physics and Computer Science (double major) in 2011 from HKUST. His research interests include multimedia networking, fog/edge computing, and video/location data analytics.

Publications

1. **Z. Chang** and S.-H. G. Chan, "Bi-Criteria Approximation for a Multi-Origin Multi-Channel Auto-Scaling Live Streaming Cloud," *IEEE Transactions on Multimedia*, Vol. 25, pp. 2839-2850, July 2023. [Online]. Available: https://doi.org/10.1109/TMM.2022.3152093

2. **Z. Chang** and S.-H. G. Chan, "An Approximation Algorithm to Maximize User Capacity for an Auto-scaling VoD System," *IEEE Transactions on Multimedia*, Vol. 23, pp. 3714-3725, October 2021. [Online]. Available: https://doi.org/10.1109/TMM.2020.3031068

3. **Z. Chang** and S.-H. G. Chan, "Video Management and Resource Allocation for a Large-Scale VoD Cloud," *ACM Transactions on Multimedia Computing, Communication and Applications (TOMM) Special Issue on Multimedia Big Data: Networking*, vol. 12, pp. 72:1-72:21, Sept. 2016. [Online]. Available: https://doi.org/10.1145/2983638

4. J. Dai, **Z. Chang**, and S.-H. G. Chan, "Delay Optimization for Multi-source Multi-channel Overlay Live Streaming," in *Proceedings of IEEE ICC 2015 - Communications Software, Services and Multimedia Applications Symposium (ICC'15)*, (London, United Kingdom), pp. 8587-8592, 8-12, June 2015. [Online]. Available: https://doi.org/10.1109/ICC.2015.7249435

5. **Z. Chang** and S.-H. G. Chan, "Bucket-Filling: An Asymptotically Optimal VoD Network with Source Coding," *IEEE Transactions on Multimedia*, Vol. 17, No. 5, pp. 723-735, May 2015. [Online]. Available: https://doi.org/10.1109/TMM.2015.2416636

Education

Aug 2015 - Dec 2023   The Hong Kong University of Science and Technology (HKUST)

Department of Computer Science and Engineering (CSE)
Doctor of Philosophy in **Computer Science**
Supervisor: Prof. Shueng-Han Gary Chan

Sep 2011 - Aug 2015   The Hong Kong University of Science and Technology (HKUST)

Department of Computer Science and Engineering (CSE)
Master of Philosophy in **Computer Science**
Supervisor: Prof. Shueng-Han Gary Chan

Sep 2007 - Aug 2011   The Hong Kong University of Science and Technology (HKUST)

Department of Physics
Bachelor of Science in **Physics** and **Computer Science**
under a **Dual Program** Designation with **First Class Honors**

Graduation Grade Average: **A (3.900)**

Jan 2010 - Apr 2010   University of Waterloo, Canada

Faculty of Mathematics
Overseas Exchange Program for 1 Semester
Grade Point Average: **A- (83/100)**

Internship

Jun 2018 - Aug 2018   Online Media Group, Tencent Video

Optimizing the Performance of P2P and Edge Network for Video Distribution

Awards

The Hong Kong University of Science and Technology (HKUST)

Oct 2010 & Nov 2009	Paul Ching Wu Chu Scholarships for Physics Students (twice)
2008 - 2010	Deans List Award (6 times consecutively)
Aug 2008	The Physics Department's Scholarship for Preparation Year Students

China Soong Ching Ling Foundation

Sep 2007 - Aug 2011   Zhi Yuan Scholarships

Skills

- **Languages**

  English (Fluent), Chinese (Native), Norwegian (Fair) and Japanese (Fair)

- **Programming Languages**

  C, C++, Java, Python, MIPS, Pascal, Prolog, Scheme and SML

- **Applications**

  Adobe Photoshop, Emacs, LaTeX, MATLAB, Mathematica, Microsoft Office (Word, Excel, Power-Point), NI LabVIEW, Vim, Linux, Mac OS and Windows operation systems

Miscellaneous

Sep 2009 - Aug 2011   HKUST Karate Club

Internal Secretary

Sep 2004 - Jul 2005   AFS Exchange Program

Exchange Student to Norway