

Curriculum Vitae

Anthony Yingjie Fu, PhD, Quantitative Analyst

Affiliation:

Vegasoul Capital Management, Hong Kong SAR, China

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Spoken Languages:

- English and Mandarin
- Some Cantonese and Japanese

Education:

2006, PhD in Computer Science, City University of Hong Kong, Hong Kong SAR, China

2003, BEng in Computer Science, Tsinghua University, Beijing, China

Awards:

2006 Oversea Research Activities Grant, City University of Hong Kong

2006 Tuition Scholarship, City University of Hong Kong

2003 MoE Studentship, Ministry of Education of China

2000 Honor-Prize, College Students' Mathematical Modeling Contest of China

1999 Third Prize, National Undergraduates' Physics Contest

1999 First Prize, University Physics Contest

Working Experience:

- 2007- Quantitative Analyst, Vegasoul Capital Management
- 2007-2007 Research Fellow, Department of Computer Science, City University of Hong Kong, Hong Kong SAR.
- 2006-2006 Visiting Scholar, Computer Science and Artificial Intelligence Laboratory, Massachusetts Institute of Technology, MA, USA
- 2003-2006 Teaching Assistant (Instructor for Tutorial Session), City University of Hong Kong, (2005 Semester B) Algorithms & Techniques for Web Searching, (2005 Semester A) Distributed System, (2004 Semester B) Algorithms & Techniques for Web Searching, (2004 Semester A) Data Base and Programming, (2003 Semester B) Java Language and Programming
- 2002~2003 Software Engineer, Gogaku Tech., Tokyo, Japan

Programming Languages:

I have three favorite programming languages and started using them from, C# since 2001, C++ since 1998, and C since 1997.

Favorite Math, CASE Tools:

Matlab, SPSS, Lingo (for Math Programming), Mathematica, UML

Research Interests:

I'm recently quite interested in devising trading strategies with AI (Reasoning and Pattern Recognition) and mathematics (Statistics). I'm also interested in Software Engineering, Web Document Analysis, Information Retrieval, Natural Language Processing, and math modeling. I'm especially interested in devising ideas that can make impact in the digital information world. The goal is to find, understand and use of prove the dynamics of mind.

Publications:

1. **Anthony Y. Fu**, Xiaotie Deng, Wenyin Liu, "REGAP: A Tool for Unicode-based Web Identity Fraud Detection", in Journal of Digital Forensics Practice, Publisher: Taylor & Francis, Volume 1, Issue 2, June 2006
2. **Anthony Y. Fu**, "Anti-PhAashing: User Study Design", in Security User Studies Workshop of SOUPS 2006, Jul, 2006, CMU, Pittsburgh, USA.
3. **Anthony Y. Fu**, Liu Wenyin, Xiaotie Deng, "Detecting Phishing Webpages with Visual Similarity Assessment based on Earth Mover's Distance (EMD) ", in IEEE

Transactions on Dependable and Secure Computing, Volume 3(4), pages 301-311, 2006

4. **Anthony Y. Fu**, Xiaotie Deng, Liu Wenyin, Greg Little, "The Methodology and an Application to Fight against Unicode Attacks", in SOUPS 2006, Jul, 2006, CMU, Pittsburgh, USA.
5. **Anthony Y. Fu**, Robert C. Miller, Greg Little, and Min Wu "Context Sensitive Password, in SOUPS 2006, Jul, 2006, CMU, Pittsburgh, USA.
6. Bessie C. Hu, **Anthony Y. Fu**, and Xiaotie Deng, "Future Decryption: Secure the Time Sensitive Information", in SOUPS 2006, Jul, 2006, CMU, Pittsburgh, USA.
7. **Anthony Y. Fu**, Wan Zhang, Xiaotie Deng, Liu Wenyin, "Safeguard against Unicode Attack: Generation and Application of UC-SimList", in Proceedings of the 15th International World Wide Web Conference, May, 2006
8. **Anthony Y. Fu**, Xiaotie Deng, and Wenyin Liu. "Homograph Attach and Counter Measures". Book section in "Phishing and Counter-Measures", publisher: Wiley, pages 81-89, Sep. 2006
9. Wenyin Liu, Xiaotie Deng, Guanglin Huang, **Anthony Y. Fu**, "An Anti-Phishing Strategy based on Visual Similarity Assessment", IEEE Internet Computing, Vol. 10, No. 2, pp. 58-65, 2006. Also appears in IEEE Distributed Systems Online, Volume 7 (4), April 2006.
10. **Anthony Y. Fu**, Xiaotie Deng, Liu Wenyin, "A Potential IRI based Phishing Strategy", in the Proceedings of 6th International Conference on Web Information Systems Engineering, Lecture Notes in Computer Science Volume 3806, pages 618 - 619, WISE 2005, New York, USA, Nov. 20-22, 2005
11. **Anthony Y. Fu**, Liu Wenyin, Xiaotie Deng, "EMD based Visual Similarity for Detection of Phishing Webpages", Proceedings of International Workshop on Web Document Analysis, WDA 2005, Seoul, Korea, Aug. 28, 2005
12. **Anthony Y. Fu**, Xiao Wu, Haohuan Fu, "Statistics-based Web Cache Prediction Model", Proceedings of ACM The 6th Postgraduate Research Day 2005, pages 85-93, Poly University of Hong Kong, Mar. 12, 2005
13. **Anthony Y. Fu**, Danxia Lin, Gang Liu, "Neural Network Enhanced Sound Source Localization Model for Mobile Terminals", in the 10th Conference on Artificial Intelligence and Applications, TAAI2005, Kaohsiung, Taiwan, Dec. 2-3, 2005
14. **Anthony Y. Fu**, Puion Au, "Waiting time prediction: an enhancement for call admission control of mobile system using neural networks", Proceedings of IEEE The 7th International Conference on Advanced Communication Technology, Volume 2, pages 749- 754, ICACT 2005, Phoenix Park, Korea, Feb. 21-23, 2005
15. **Anthony Y. Fu**, Haohuan Fu, Pui-on Au, "An Integration Approach of Data Mining with Web Cache Pre-fetching", Lecture Notes in Computer Science Volume 3358, pages 59-63, Publisher: Springer-Verlag, ISPA 2004, Hong Kong, China, Dec. 13-15, 2004

Systems Developed:

1. ASIM (A Smart Information Miner) is shared software to help you retrieve online information (news etc.) and provide active notification when new news arrives. It is

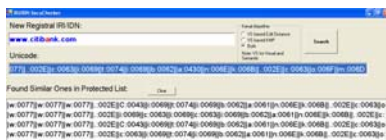
- CSPass (Context Sensitive Password) is novel design for password protection. The server identity verification is put in to the login process for end users. There are two versions of them (CSPassI and CSPassII).

Weblink: <http://antiphishing.cs.cityu.edu.hk/CSPassI>
<http://antiphishing.cs.cityu.edu.hk/CSPassII>



- IRI/IDN SecuChecker is software which can help you find similar IRI/IDNs in the domain name database. It is based on UC-SimList and three string similarity or pattern matching algorithms

Weblink: http://www.mit.edu/~ayf/my_free_sw/IRISecuChecker



- WWSSList (Word-Word Semantic Similarity List) is database copyrighted by Antiphishing group of City University. With it, we can calculate/measure the semantic similarity or relationships.

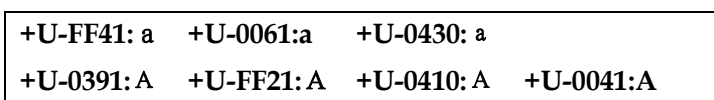
E.g. The following words similarity are from WWSSList.

Word1	Word2	Similarity
Left	Right	9.94
Coin	Money	8.56
Student	Coin	0

- UC-SimList (Unicode Character Similarity List) is database copyrighted by Antiphishing group of City University. With it, we can calculate/measure the visual/semantic similarity of characters in Unicode.

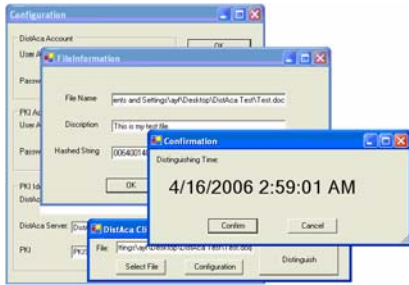
Weblink: <http://www.mit.edu/~ayf/IRI>

E.g. the follows are the 100% similar characters to "a" in Unicode according to UC-SimList



- DistAca (Distinguisher for Academia) is software that can help you prove you have done some research/art work/publication for the first time in the word. When you submit your files' encrypted signature to the system, the "distinguishing" process is done. You don't have to disclose your work to the DistAca.

Weblink: http://www.mit.edu/~ayf/my_free_sw/DistAcaDemo.zip



11. ASMS (Anti-Spam Mail Server) is a mail server version of verification image challenge based anti-spam system
Weblink: http://www.cs.cityu.edu.hk/~anthony/my_free_sw
12. ASAO (Anti-Spammer Addin for Outlook 2003) is shared addin for MS Outlook 2003, which can protect you from spam attacks.
Weblink: http://www.mit.edu/~ayf/my_free_sw
The emails that are from unknown addresses (not in the contact list) will be saved in a "Holding box" in Outlook, and challenge emails containing 3d character verification image (as follows) are replied to the senders to recognize.



International Conference Service:

Program committee member of the First International Workshop on Spoofing, Digital Forensics and Open Source Tools (SDFOST) (in conjunction with ARES-2007 -- The Second International Conference on Availability, Reliability and Security), April 10-13, 2007, Vienna, Austria

Organizing committee member of the 16th Annual International Symposium on Algorithms and Computation (ISAAC 2005) December 19 - 21, 2005, Sanya, Hainan, China