Curriculum Vitae

Chang, Shuhao
Tsinghua University
Electronic Engineering

Publications:

Oct. 2017	Chinacom2017 First Author	*An Efficient Algorithm for Refining Position and Velocity Outputs of Space-borne GNSS Receivers*

Honors and Awards:

Nov. 2017	Scholarship for academic excellence of Tsinghua University
Nov. 2017	Outstanding student backbone honor of Tsinghua University
Oct. 2016	Comprehensive excellent scholarship of Tsinghua University
Oct. 2016	Social contribution scholarship of Tsinghua University
Oct. 2016	Outstanding public welfare honor of Tsinghua University
Sept. 2015	Second-class scholarship for junior students of Tsinghua University
Aug. 2015	'Perfect' level in 'Leading Plan' of Tsinghua University
May. 2015	'Outstanding Student' honor of Jilin Province, China
Sept. 2014	First-class prize in 'National Mathematical Olympiad' of Jilin area

Scientific Research:

- **Space-borne navigational positioning based on receding horizon filtering**

Sept. 2016 – Aug. 2017

Position and velocity outputs of space-borne GNSS receivers may not be accurate enough to be used at new situations. In this work, I propose a new algorithm to refine the output of receivers and verify the effect with simulations acted on real in-orbit satellite data. In October this year, I published a paper as the first author and made a 20 minutes' presentation on Chinacom2017, which is raised by European Alliance for Innovation(EAI). During the presentation, I successfully answered several questions about our work and won praise from the chairperson.

- **Privacy-preserving data publishing (PPDP) solutions on check-in dataset**

Jun. 2017 - now

Publishing data without divulging privacy is a hotspot issue nowadays. I enter the FIB Lab of THU this year and focus on proposing new solutions to enhance the availability of data subject to the condition that privacy of users in dataset with check-in records is preserved enough with loosened k-anonymity. I have built up an attacker model and used data-driven methods to analyze the uniqueness of check-in records successfully. In the following two months, I and my partner will put forward an algorithm to realize combinatorial optimization on availability and privacy. I plan to publish a formal paper then.

- **Cross-modal matching of audio and visual information**

Oct. 2017 - now

Different form of information may have similar meaning. I, as well as my two partners, are now working on a curriculum project to automatically match audio segments with silent videos with deep learning methods.

Research Skills:

- Language: C\C++, Python, Matlab, MIPS, SQL ...
- Knowledge: Signal Processing, Machine Learning and Deep Learning, Networks ...
- GPA: 3.63 Rank: 22/248
- Current English Level: TOEFL 98’

Research Interests:

- Application of machine learning and deep learning methods
- Data mining, analyzing and privacy preserving
- Digital signal processing

Extra-curriculum Activities

Minister of Public Affair, Students Union Department of EE

Activities established or organized:

Jun. 2017 - now

- Meet the Master Forum
- Mini-experience at Great Enterprise
- Story of EE Lecture Series
- 40,000+RMB Sponsorship Fund