Jingkang Wang
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Education

- **Shanghai Jiao Tong University (SJTU)** — Shanghai, China
  B.E. in Cyber Security (Information Security Department in SEIEE); — *Sept. 2015 – June. 2019 (Expected)*
  - **GPA**: 3.96/4.3 (91.6/100)
  - **Rank**: Major: 2/98; Overall: 2/98

Publications

- **Multiple Character Embeddings for Chinese Word Segmentation.** *May.2018*
  Submitted to EMNLP 2018: 56th Annual Meeting of the Association for Computational Linguistics. **(First author)**
- **One Bit Matters: Understanding Adversarial Examples as the Abuse of Data Redundancies.** *May.2018*
  Submitted to NIPS 2018: Annual Conference on Neural Information Processing Systems.
- **LiDAR-Video Driving Dataset: Learning Driving Policies Effectively.** *Nov.2017*
  Accepted by CVPR 2018 : IEEE Conference on Computer Vision and Pattern Recognition. **(Co-First author)**
- **Overview of Plaintext Password Generation Models.** *Oct.2017*
  Accepted by Chinese Computer Engineering and Applications Journal. (Chinese) **(Second author)**

Honors & Awards

- **National Scholarships (top 2%)** *2016, 2017*
- **Level-A SJTU Outstanding Scholarships (top 1%)** *2016, 2017*
- **First Prize in National College Students Information Security Competition** *2018*
- **Meritorious Winner Prize of Mathematical Contest in Modeling** *2018*
- **Second Prize in National College Students Information Security Competition** *2017*
- **Second Prize in The Chinese Mathematics Competitions** *2017*
- **Third Prize in Parts of The National Physics Contest for College Students** *2016*
- **SJTU Merit Students** *2016, 2017*
- **SJTU Excellent League Cadres** *2016, 2017*

Research Experiences

- **SJTU Machine Vision and Intelligence Group (MVIG)** — CS, Shanghai
  Advised by ***Research Professor Cewu Lu*** — *Apr. 2017 - Present*
  - **3D Object Detection PointNet/PointCNN**: Design a novel end-to-end network which generates bounding boxes wiser than VoxelNet by combining farthest sampling, segmentation PointCNNs and RPN network.
  - **LiDAR-Video Benchmark for Auto-driving**: Build a benchmark designed for policy learning which has combined 3D and 2D information scanned by high-precision sensors. Answer the questions why the depth information matters and how to leverage depth effectively.
- **SJTU PRP Program: Data Mining and Analysis of Plain Passwords** — IS, Shanghai
  Advised by ***Associate Professor Gongshen Liu****. Project evaluation:* ***Excellent (Top 10%)*** — *Jan 2017 - Oct 2017*
  - **Data Mining on Large-Scale Real Plain Password**: Analyse the implicit rules for users when creating passwords in real scenarios based on two hundred million leaked real passwords.
  - **Password Generation Model**: Survey and reproduce the representative models. Firstly apply GAN to password generating scenario, which outperforms other the state-of-the-art models such as OMEN (Markov in essence), PCFGs and pure-LSTM/GRU.
- **Dynamic Searchable Encryption System Based on Graph Database** — IS, Shanghai
  Advised by ***Associate Professor Lei Fan****. Honor:* ***National second prize in NCSISC*** — *Mar. 2017 - Aug. 2017*
  - **Algorithm Improvement on Parallel Dynamic Searchable Symmetric Encryption**: Simplify and improve the original algorithm proposed by Seny Kamara and also propose several additional policies to enhance security.
  - **The Back-end Implementation Based on The Graph Database** : Implement our improved algorithm utilizing Neo4j Graph Database and successfully validate it based on large-scale ciphers.

Skills & Projects

- **Deep Learning Framework**: Tensorflow, Pytorch, Keras, Dynet
- **Projects**: JKSniffer (network sniffer), SuperAlarm (android app), DSSE-GraphDB (Work for National Competition)