Ningfei Wang

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EDUCATION

- **Lehigh University** — Pennsylvania, USA
  Master of Science in Computer Engineering, Current GPA: 3.91/4.00 — *Aug 2017 – May 2019 (Expected)*
- **Beijing University of Posts and Telecommunications** — Beijing, China
  Bachelor of Engineering in Information Engineering, GPA: 84.7/100.0 — *Aug 2013 – Jun 2017*

RESEARCH EXPERIENCE

- **Dynamic Fingerprinting** — Lehigh University, USA
  Research Assistant, SEC lab (Prof. Yinzhi Cao) — *Oct 2017 - Present*
  - Implemented a web crawler to get 5000 softwares in Windows OS and deployed a database to store fingerprinting (some features such as jsFonts, languages).
  - Autotest: Built Virtual Machine(Windows OS) in Virtual Box. Installed one software in Virtual Machine. Visited our website to obtain fingerprinting and store into database. Deleted the Virtual Machine. Repeated the steps automatically until all softwares are tested.
  - Analysed the data and found the softwares which influence the OS fingerprinting changed. Matched back the data of autotest to our real-world data.
  - Github repository: https://github.com/Song-Li/dynamic_fingerprinting
- **Botnet Detection** — Lehigh University, USA
  Research Assistant, WINS lab (Prof. Mooi Choo Chuah) — *Sep 2017 - Dec 2017*
  - Implemented GUI showing the network and infected nodes detection using python. The data was from our Lab and this GUI was used in SEEDS in Lehigh University, 2017.
  - Implemented network simulations in 3 types (Query-Response-Acknowledge, Query(Command)-Acknowledge and Query(Command) only) using Omnet++. Included broadcast and long packages.
- **The Implement of Managing Heterogeneous Cloud with OpenStack** — BUPT, China
  Research Assistant, Advisor: Prof. Yang Peng — *Sep 2016 - May 2017*
  - Deployed OpenStack Cloud and VMware Cloud environments including memories, networks and so on.
  - Used the Nova Module *(computing module in OpenStack)* to control OpenStack Cloud and VMware Driver which controls VMware Cloud. Showed the details of two clouds in a webpage and saved the data.
  - Used the data and configuration files to design an algorithm for scheduling of clouds resources. Provided the optimum solution of processing the tasks
- **Inellient Omnidirectional Imaging System (VR)** — Tsinghua University, China
  Research Assistant, Advisor: Prof. Xiangyang Ji — *Feb 2016 - Aug 2016*
  - Read data from 6 GoPro Cameras into PC, scattered the videos into images and implemented the image mosaic with Hugin.
  - Extracted features of images using Sift, Surf Algorithms with OpenCV. Used features to detect overlapping and generate masks. Implemented images blending smoothly and generated videos from blended images.
  - Implemented optimization using parallelization and completed the design of panoramic video system.

INTERNSHIP

- **Machine Learning Intern** — Cheetah Mobile, China
  Machine Learning Department — *Mar 2017 - Jun 2017*
  - Implemented RNN (*Recurrent Neutral Networks*) and LSTM *(Long Short-Term Memory*) algorithms using C++ used by OCR *(Optical Character Recognition)* group.
  - Developed and optimized English Input Method used by NLP *(Natural Language Processing)* group.

HONORS & AWARDS

- **Honorable Mention,** Interdiscipliary Contest in Modeling 2016
- **Second Prize,** Contemporary Undergraduate Mathematical Contest in Modeling 2015

SKILLS

- **Programming Language:** Python, C++, C, Javascript, Matlab
- **Framework:** MySQL, Scikit-Learn, OpenCV, Tensorflow