Shuai Yuan 袁帅

Email: shuai@cs.duke.edu   Tel: (919) 949-3462   URL: http:// www.cs.duke.edu/~shuai

Education:

Ph.D. in Computer Science, Duke University, USA   **2018.8-present**
- Research focused on Machine Learning and Computer Vision

B. S. in Computer Science, K. Y. Honors School, Nanjing University, China   **2014.9-2018.6**
- Kuang Yaming Honors School is one of the National Training Bases for Talented Students ("Elite Program") certified by China's Ministry of Education, which only admits the top 5% of newly admitted freshmen
- Overall GPA: **4.59/5.00**, ranking **1/41** in the Computer Science Elite Program

International exchange student (non-degree), Duke University, USA   **2016.8-2016.12**
- Visiting International Student Program (VISP), Computer Science, GPA: **4.00/4.00**

Research Experience:

Duke University vision group   **2018.8-present**
- Supervisor: Prof. Carlo Tomasi (ACM Fellow)
- Developing better methods in video motion analysis.

Nanjing University LAMDA (Learning And Mining from DatA) group   **2017.3-2018.5**
- Supervisor: Prof. Zhi-Hua Zhou (Fellow of the ACM/AAAS/AAAI/IEEE)
- Contributed open source code for the models gcForest (deep forest) and eForest (forest auto-encoder)
- Currently working on improving deep forest by adding in decision path information as final-year thesis defense.

Stanford University online research project   **2017.9-2018.3**
- Supervisor: Prof. Tsachy Weissman (IEEE Fellow)
- Won **first place** in the research project competition "Optimal Estimation of the Differential Entropy"
- Worked on generating a tighter exponential concentration bound of the KL-Divergence for empirical estimation

Work Experience:

Teaching assistant, Duke University, USA   **2019.1-present**
- TA for CompSci 527 Computer Vision (grad-level), instructed by Prof. Carlo Tomasi
- Holding office hours and grading assignments

Data analyst intern, Toplore Bio-Tech, Nanjing, China   **2018.7-2018.8**
- Analyzed cell images and predicting cancer cells

Undergraduate teaching assistant, Nanjing University, China   **2017.9-2018.1**
- Helped to teach course *Problem Solving III* for sophomore undergraduate students
- Specifically, grading students' weekly written assignments and holding discussion sections

Quant intern, Tianfeng Securities, Shanghai, China   **2016.7-2016.8**
- Implemented statistical methods on financial decision-making models by computer simulations
- Specifically, predicted potential profits of strategies based on Investor Sentiment Index Models

Honors & Awards:

- **Global level:**
  - ➢ **Rank 1/18**, Qingfan project competition "Optimal Estimation of the Differential Entropy", 2017 (top 6%)
  - ➢ **Meritorious Winner**, Mathematical Contest in Modeling, 2016 (top 8% worldwide)
- **National level:**
  - ➢ **First Prize** of Elite Program Scholarship Award, 2015 (top 10% among Elite Program students)
  - ➢ **First Prize** of People's Scholarship Award, 2015 (top 5%)
- **University level:**
  - ➢ **Lu Dexin Award** of Nanjing University in 2018 (top 10% among Elite Program students)
  - ➢ **Outstanding Student Award** (aka **"Dean's List"**) of Nanjing University in both 2015 and 2016 (top 3%)
  - ➢ **Second Grade Award** of the 19th Forum of Sciences & Arts of Nanjing University, 2016 (top 15%)

Technical Skills:

- Computer programming by various languages including C/C++, Python, MATLAB and R
- Basic distributed computing techniques including Python joblib and Spark (PySpark)
- Computer experimenting skills on Linux-based servers using SSH
- Data visualization tools including Excel and Python Seaborn

Leadership & Social Activities:

- **Volunteer translator, Coursera, part-time online**   **2017.8- 2017.9**
  - ➢ Translated part of video subtitles into Chinese for two deeplearning.ai courses taught by Prof. Andrew Ng
- **Vice President, Students' Union of Kuang Yaming Honors School**   **2015.7- 2016.7**
  - ➢ In charge of student academic activities; major contributions including organizing a university-level essay contest and 6 public lectures/seminars
  - ➢ Increased activity popularity (measured by number of participants) by 25% over the previous best record
- **Volunteer & Chinese tutor, the Amity Foundations, China**   **2014.8- 2014.8**
  - ➢ Received German volunteers and helped them go through the Summer Training Program (STP)
  - ➢ Worked as a Chinese language tutor for foreign learners in the Young Adult Program (YAP)
  - ➢ Studied elementary-level German language (A1 Level by European standard)