

Shuai Yuan 袁帅

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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)
 - Worked 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** 2019.1-2019.5
- TA for CompSci 527 Computer Vision (grad-level), instructed by [Prof. Carlo Tomasi](#)
 - Held office hours and graded exams and 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:

- **Student Member, Duke CS Faculty Search Committee** **2019.2- present**
 - In charge of informing students of the job talk and grad student meeting schedules
 - Lined up volunteers for escorts and collected student feedbacks
- **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 (around A2 Level by European standard)