Xiao Ling

Ph.D. Candidate in Systems modeling
Virginia Commonwealth University

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Experience

- **Virginia Commonwealth University** — Virginia, USA
  Graduate Teaching Assistant — *July 2017 - Present*
  - Collaborates with faculty to develop machine learning algorithms.
  - Delivered research presentations at well recognized conferences.
  - Lectured, instructed labs, proctored exams, graded tests and assignment for general courses in mathematics.
- **The University of Toledo** — Ohio, USA
  Teaching Assistant — *Jan 2016 - Jun 2017*
  - Lectured, instructed labs, proctored exams, graded tests and assignment for general courses in mathematics.
- **General Electric Healthcare** — Shanghai, China
  Demand Planning Analyst — *Sep 2012 - Feb 2016*
  - Implemented demand planning with configuration of production requirements, planning book, forecasting strategies(Time series analysis and linear regression).
  - Developed multiple ad-hoc Visual Basic for applications in forecasting ,data cleaning, data visualization.
  - Configured APO Data Mart with Key Figures, Characteristics, Data Sources, and Info Cubes to store historical sales invoice data which is gathered from R/3 and non-R/3 systems.
  - Maintained global executive supply & demand planning report.
  - Training team members on various techniques.
- **Shanghai Shi-Cheng Electronics Technology Company** — Shanghai, China
  Analyst and Consultant — *Sep 2003 - Aug 2012*
  - Developed multiple Data Analytical Visual Basic for applications.
  - Launched various statistical model using R and SPSS.
  - Reconciled various datasets in VBA to generate Interactive Dashboard.
  - Maintained reports on a weekly, monthly and quarterly basis.

Highlights

- Experienced in designing, implementing, testing, and deploying an algorithm to handle big data.
- Strong background in computer vision, machine learning, and statistical analysis.
- Strong system builder, excellent presenter, and team player.
- Independent, creative, and rigorous thinker.

Technical Expertise

- **Programming**: R, Scala, Spark, SQL, SAS, VB, C
- **Projects:**VBA Interactive Dashboard, Implement Sparse Robust PCA in Spark, Implement KPCA in C/R

Education

- **Virginia Commonwealth University** — Virginia, USA
  Doctor of Philosophy in Systems Modeling and Analysis — *Aug 2017 - Exp. Summer 2021*
- **The University of Toledo** — Ohio, USA
  Master of Science in Statistics — *Aug 2015 - Jun 2017*
- **University of Shanghai for Science and Technology** — Shanghai, China
  Bachelor of Power Plant and Thermal engineering — *Aug 1998 - Jun 2003*

Research Areas

- Theory/algorithms for L_1-norm subspace estimation.
- Subspace learning Applications to computer vision.
- Algorithms implementation on the parallel processing framework Apache Spark in cloud AWS, Azure and GCP.

Ongoing Project

- **Kernel L_1-PCA** Developing a kernel version of L_1-norm PCA

Publications

- Xiao Ling, Paul Brooks, **L_1-norm regularized L_1-norm best-fit line problem**
  The 15th INFORMS Virtual Workshop on Data Mining and Decision Analytics
- Xiao Ling, Paul Brooks, **Image Denoising via patch based L_1-norm principal component Analysis**
  SPIE Defense + Commercial Sensing

Research Outputs

- **Apache Spark(Scala):** L_1-norm regularized L_1-norm best-fit line algorithm.
- **R:** Image Denoising via patch based L_1-norm principal component analysis.
- **C:** Kernel L_1-principal component analysis.

Professional Societies

- Institute for Operations Research and Management Science (INFORMS) Quality, Statistics & Reliability Section and Optimization Society Subdivision
- The international society for optics and photonics(SPIE)