Dongming Jin

+1 (956) · 545 · 2817 ⋄ TX

http://domij.info

contact@domij.info

EDUCATION

- **University of Texas at Arlington** — Arlington, TX
  Ph.D. in Physics; GPA: 4.00; Scharf Endowment Award — *Aug. 2014 – May 2018*

- **University of Texas at Brownsville** — Brownsville, TX
  Master of Science in Physics; GPA: 3.47; ΣΠΣ member — *Aug. 2012 – Jun. 2014*

- **Zhejiang University of Technology** — Hangzhou, China
  Bachelor of Science in Applied Physics; Cum Laude; finished in 3 years — *Aug. 2008 – Jun. 2011*

SKILLS

- **Programming**: Python, R, Matlab, bash, C, Scala   **Tools**: Docker, git, Zeppelin, TensorFlow, MPI

- **Engineering**: Raspberry Pi, Arduino, OnShape, 3D Print   **Systems**: Linux, Hadoop, VNC, AWS

EXPERIENCE

- **Meituan-Dianping** — Beijing, China
  Research and Development Intern — *Jun. 2017 - Sep. 2017*
  - **Natural Language Processing**: Implemented NLP model for semantic analysis, improved 1.02% CPR under A/B test. Proposed stroke as a special feature to train word vectors for Chinese language.
  - **Micro-service**: Deployed and maintained intention recognition modular for cross-platform usage with PLUS.
  - **Recurrent Neural Network**: Applied BiLSTM + CRF model and archived 85% accuracy on NER tasks.

- **Large Synoptic Survey Telescope** — US
  Data Science Fellow — *Aug. 2016 - May 2018*
  - **Machine Learning**: Spent one week in CalTech learning conventional ML models and techniques like MCMC and Bayesian theorem for model evaluation and selection.
  - **Unit Test, Profiling and Data Management**: Trained about SE skills and database techniques in production.
  - **Bayesian Statistics**: Studied at University of Washington on adapting Bayesian models for statistical analysis and inferences.
  - **Photometry**: Explored techniques and models on optical image processing specialized in Astronomy.
  - **Time-Domain Analysis and Visualization**: Discussed periodicity modeling and interactive data presenting tools, including Bokeh and ParaView, in University of Pittsburg.

- **Kavli Institute for Astronomy and Astrophysics at Peking University** — Beijing, China
  Visiting Scholar — *May 2015 - Jul. 2015*
  - **Lomb-Scargle Analysis**: Periodicity study on the characterization of variable stars using optical telescopes.
  - **Pipeline Development**: Developed a pipeline for the 50BiN telescope to do data reduction, analysis and visualization. Programmed a script for preliminary data release and management for the group.

PROJECTS

- **Jupyter as Research Tool**: Open workflow to conduct reproducible data analysis in academia.

- **Maker Footprints**: Drone engineering for radio antenna calibration; 3D prototyping with FFCP and OctoPrint server on Raspberry Pi; ASR bot with ReSpeaker mic-array, for dialog analysis based on NNs.

RESEARCH

- **Perspective BBHs in the Virgo Clusters with Gravitational Wave** — Matthew Benacquista
  Ph.D. Dissertation — *Aug. 2014 - May 2018*
  - **Data Analysis**: Populate the distribution of globular clusters within 30 Mpc using machine learning algorithms.
  - **HPC**: Simulate globular clusters using Monte Carlo method on TACC, a 100 TB library of 3240 models.
  - **Signal Process**: Evolve the 17M binary black holes and evaluate the signal response for space-borne gravitational wave detectors.

- **Public Presense**: 2018 LSST, IL; ICDIS, TX; arXiv:1712.00632; 2017 ACES, TX; MODEST, Prague; 2016 MODEST, NY; 2015 MODEST, Japan; 2014 MODEST, Germany; 2013 IAU, China.