Mohan Li

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Looking for a machine learning engineer / data scientist internship in summer 2019.

Skills

- Programming: C++, Python, CUDA, ROOT, Bash, Tensorflow, Matlab, HTML/CSS

Experience

Research assistant, University of Illinois at Urbana-Champaign, Urbana, IL

Development of a two-panel dedicated head-and-neck cancer PET system

- System design and performance evaluation through **Monte Carlo simulation**
- **Penalized maximum-likelihood** algorithm for reducing limited angle artifacts
- Designed and characterized a dual-ended DOI detector module based on SiPM and LYSO in **ROOT**
- Flooding histogram segmentation and location with **clustering** and **classification tree**

Undergraduate researcher, Tsinghua University, Beijing, China

Separation of scintillation and Cherenkov lights in liquid scintillator

- Lead a team of three to design and implement a radiation detection platform
- Constructed real-time data streaming pipeline based on MIDAS
- Designed a **waveform-analysis** algorithm for scintillation decay constants and light yield

Summer undergraduate researcher, DESY, Hamburg, Germany

Adding particle hit errors to EUDET-type beam telescopes

- Implemented particle hit error into the EUTelescope data analysis framework based on **C++**

Education

University of Illinois   Urbana-Champaign, IL
Ph.D. student, Nuclear, Plasma and Radiological Engineering, May 2021 (expected)

University of Illinois   Urbana-Champaign, IL
MS, Nuclear, Plasma and Radiological Engineering, July 2018

Tsinghua University   Beijing, China
BE, Engineering Physics, July 2015

Related Courses

Computer Science:	Distributed Systems	Computer Vision	Applied Parallel Programming
Statistics:	Random Processes	Statistical Learning	Applied Regression and Design

Honors and Awards

University of Illinois at Urbana-Champaign

- Cancer Scholars for Translational and Applied Research Graduate Fellowship   2018

Deutsches Elektronen Synchrotron (DESY)

- Best summer student in DESY ATLAS group (1/15)   2014

Selected Publications (2 of 5, total citation 51)

- **Li, M.**, Guo, Z., Yeh, M., Wang, Z., & Chen, S. (2016). "Separation of scintillation and Cherenkov lights in linear alkyl benzene." *Nucl. Instr. Meth. A*, 830, 303-308.
- **Li, M.**, and Abbaszadeh, S. "Influence of channel configuration on bandwidth of cadmium zinc telluride detector with a cross-strip pattern." *Radiat. Phys. Chem.*.