Mohan Li

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Education

University of Illinois at Urbana-Champaign — August 2020
Ph.D. Candidate, Nuclear, Plasma and Radiological Engineering, GPA: 3.63/4.00

University of Illinois at Urbana-Champaign — July 2018
Master of Science, Nuclear, Plasma and Radiological Engineering, GPA: 3.69/4.00

Related Courses

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

Tsinghua University — July 2015
Bachelor of Engineering, Engineering Physics, GPA: 89.4/100.0

Skills

- Programming: C++, Python, C#, Bash, CUDA, TensorFlow, HTML/CSS; Unity, Matlab, Visual Studio, Jupyter, Vim

Work & Project Experience

University of Illinois at Urbana-Champaign — Feb 2017 - Present
Organ-dedicated PET system — Urbana-Champaign, IL

- Evaluated system performances through Monte Carlo simulation for optimized system design
- Designed a high-resolution and depth-of-interaction capable detector for building the PET system

Computed Tomography R&D intern, Canon Medical Research USA, Inc. — Summer 2019
Augmented reality (AR) based CT demo — Chicago, IL

- Investigated **Unity** API samples of Magic Leap One for controlling mixed reality virtual objects
- Applied clinical CT image segmentation for personalized patient model and AR-assisted surgery
- Developed an AR demo in **C#** for simplifying CT scan protocol and 3D-visible CT marketing

University of Illinois at Urbana-Champaign — Spring 2018
Melbourne housing market (Statistical Learning course project)

- Applied data cleaning, feature selection and normalization for data preprocessing
- Predicted housing price in **Python** by training statistical regression models

Tsinghua University — Sep 2014 - June 2016
Water-based liquid scintillator for neutrino experiment — Beijing, China

- Implemented a real-time data streaming pipeline based on MIDAS in the **Bash** environment
- Designed a waveform-analysis algorithm for scintillation decay constants and light yield

Intern, Deutsches Elektronen Synchrotron DESY — Summer 2014
EUTelescope data analysis platform — Hamburg, Germany

- Estimated particle hit error in pixel telescopes for improving particle tracking accuracy
- Implemented new features in **C++** to the EUTelescope data analysis platform

Honors and Awards

University of Illinois Urbana-Champaign

- Cancer Scholars for Translational and Applied Research Graduate Fellowship — 2018-2020

Deutsches Elektronen Synchrotron DESY

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

Selected Publications (2 of 7, total citation: 67)

- **Li, M.**, & Abbaszadeh, S. (2019). Depth-of-interaction study of a dual-readout detector based on TOF-PET2 application-specific integrated circuit. *Physics in Medicine & Biology*.
- **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.