Yu (Eric) Zhu, Research Scientist

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EDUCATION
Carnegie Mellon University (CMU), Entertainment Technology Center — Pittsburgh, PA
    Master of Entertainment Technology, Expected May 2022
Harvard Graduate School of Education – Harvard University – Boston, MA
    Master of Education, 2018
Peking University – Beijing, China
    Ph.D. of Theoretical Physics, 2003
    B.S. of Physics, 1998

WORK EXPERIENCE
Cofounder and Senior Scientist, NanoAcademic Technologies Inc., 2008 – 2020
- Nonequilibrium coherent potential theory in disordered systems
- Software development for first-principles nanoelectronic device simulation

Research Assistant Professor, The University of Hong Kong, 2005- 2006
- Quantum transport in magnetic tunnel junctions
- Quantum transport in carbon nanotubes

Postdoc Researcher, McGill University, 2003 – 2005, 2006 - 2008
- Molecular electronics
- Time-dependent quantum transport theory

INDUSTRIAL/ACADEMIC PROJECTS
- Industrial research assistant program NAQEDA, Senior Scientist, Spring 2012
- Nanoelectronic Device Simulator, Project Manager, Spring 2014
- Atomistic Simulation of Quantum Transport in Nanoelectronic Devices, 1st author, Spring 2016
- Database screening for 2D ferromagnetic materials, Project Manager, Spring 2018
- A Virtual Tour in Einstein's Playground, Programmer and Test Designer, Spring 2019
- Nano2d - An immersive visualization of 2D materials database, Project Manager, Spring 2019
- Building Virtual Worlds, Programmer and Producer, ETC, Fall 2020

SKILLS

Physics: Quantum transport theory, Density functional theory, Electronic device physics

Data Science: Statistical learning, Deep learning, Sklearn, Keras, Python, Numpy, Matplotlib, Pandas

Computation: Numerical algorithms, Matlab, Mathematica, Fortran, MPI

Virtual Reality: Unity, C#, SDKs