***PERSONAL INFORMATION***

**Name: Dejun Qi**

**Address:** 3252 S Wallace St. Chicago IL, 60616 | (646)678-8444 |

**Email**: [dejunqi2008@gmail.com](mailto:dejunqi2008@gmail.com)

**Website**: <http://dejunqi2008.github.io/>

**GitHub**: <https://github.com/dejunqi2008>

**LinkedIn**: <https://www.linkedin.com/in/dejun-qi-132a2865>

***EDUCATION***

**DePaul University - Chicago, IL** March 2017 (Expected)

MS Computer Science

* GPA: 3.61 / 4.00
* Key Coursers: Software development, Database, Algorithms, Machine Learning, Scientific Computing

**University of Arkansas Fayetteville, AR** May 2014

PhD Physics

* GPA: 3.74 / 4.00
* Dissertation: From Graphite to Graphene via Scanning Tunneling Microscopy

**Harbin University of Science and Technology** July 2008

BS Physics

* GPA: 3.01/4.00

***EXPERIENCE***

**Software Engineer**, American Family Insurance, June 2016 - present

* Developed backend applications using Django
* Developed web scraping program for collecting data across internet.
* Managing data on AWS S3 with AWS-CLI

**Research Assistant,** University of Arkansas, 2010 Aug -2014 May

* Performed data modeling of electrostatic force between STM tip and graphene membrane during experiment
* Performed ultra-high vacuum scanning tunneling microscopy research on grapheme and semiconductor materials.
* Developed method of using scanning tunneling microscopy to control vibration and geometry of suspended grapheme
* Designed and implemented fabrication processes for stable and high resolution STM tip

**Physics Lecturer**, University of Arkansas, 2009 Aug - 2014 May

* Taught introductory physics courses at the undergraduate level;
* Developed and demonstrated strong verbal communication skills by explaining highly technical concepts to a novice audience;

***PROJECTS***

***In software engineering field***

**PyScraper (**<https://github.com/dejunqi2008/PyScraper>)

* A software for collecting housing data from internet
* The whole project is running on AWS EC2, uploading data to S3 bucket.

**Smartphone-Based Recognition of human activities and postural transitions**

* Designed and implemented machine learning algorithm to analyze human activity signal recorded via smartphone.
* Successfully classified 12 movements with error rate less than 10 %.

**My personal blog system (**<http://dejun-blog.herokuapp.com/>)

* Fully functional blog system for my daily writing, registration
* RESTful APIs were built using Django REST framework

***In physics research filed***

**Investigation on graphene via atomic-scale imaging and manipulation**

* Tracked ripples in freestanding Graphene for 1st time by discovering the vibration of graphene membranes in 35 nanometers under particular circumstance
* Characterized graphene's bonding effect on platinum nanoparticle of 2 to 5 nanometer size
* Integrated molecular beam epitaxy chamber with scanning tunnel microscope system

***SKILLS***

**Computing, Modeling, Research, Software Developing**

* **Languages:** Python, Java, JavaScript, PHP, HTML, CSS
* **Database:** MySQL, PostgreSQL
* **Version control:** Git & Github
* **Cloud infrastructures:** Amazon Web Service (AWS S3)
* **Operating System:** Linux (Ubuntu, Fedora), Mac, Windows

***PUBLICATIONS***

Multilayer graphene, Moiré patterns, grain boundaries and defects identified by scanning tunneling microscopy on the m-plane, non-polar surface of SiC, P. Xu, **D. Qi**, J.K. Schoelz, J. Thompson, P.M. Thibado, V.D. Wheeler, L.O. Nyakiti, R.L. Myers-Ward, C.R. Eddy Jr., D.K. Gaskill, M. Neek-Amal, F.M. Peeters Carbon 50, 75-81 (2014).

Peng Xu, Lifeng Dong, Mehdi Neek-Amal, Matt L. Ackerman, Jianhua Yu, Steven D. Barber, J. Kevin Schoelz, **Dejun Qi**, Fangfang Xu, Paul M. Thibado, and Francois M. Peeters, Self-Organized Platinum Nanoparticles on Freestanding Graphene (accepted by ASC Nano)

Membrane amplitude and triaxial stress in twisted bilayer graphene deciphered using first-principles directed elasticity theory and scanning tunneling microscopy M. Neek Amal, P. Xu, **D. Qi**, P.M. Thibado, L.O. Nyakiti, V.D. Wheeler, R.L. Myers-Ward, C.R. Eddy, Jr., D.K. Gaskill, and F.M. Peeters Physical Review B 90, 064101 (2014).

Unusual ultralow frequency fluctuations in freestanding graphene P. Xu, M. Neek-Amal, S. D. Barber, J. K. Schoelz, M.L. Ackerman, P. M. Thibado, A. Sadeghi, and F.M. Peeters Nature Communications 5, 3720 (2014). Click here for more information about this study.

Atomic-scale movement induced in nanoridges by scanning tunneling microscopy on epitaxial graphene grown on 4H-SiC(0001) P. Xu, S. D. Barber, J. K. Schoelz, M. L. Ackerman, **D. Qi**, P. M. Thibado, V. D. Wheeler, L. O. Nyakiti, R. L. Myers-Ward, C. R. Eddy, Jr., and D. K. Gaskill, “Journal of Vacuum Science and Technology B 31(4), 04D101

Graphene Manipulation on 4H-Sic(0001) using Scanning Tunneling Microscopy P. Xu, M. L. Ackerman, S. D. Barber, J. K. Schoelz, **D. Qi**, P. M. Thibado, V. D. Wheeler, L. O. Nyakiti, R. L. Myers-Ward, C. R. Eddy, Jr., and D. K. Gaskill, *Japanese Journal of Applied Physics 52, 035104*,

Electronic Transition from Graphite to Graphene via Controlled Movement of The top Layer with Scanning Tunneling Microscopy”P. Xu, Y. Yang, **D. Qi**, S. D. Barber, J. K. Schoelz, M. L. Ackerman, L. Bellaiche, and P. M. Thibado, *Physical Review B 86, 085428*

Electromechanical properties of freestanding graphene functionalized with tin oxide (SnO2) nanoparticles L. Dong, J. Hansen, P. Xu, M. L. Ackerman, S. D. Barber, J. K. Schoelz, D. Qi, and P. M. Thibado, *Applied Physics Letters 101, 061601*

New scanning tunneling microscopy technique enables systematic study of the unique electronic transition from graphite to graphene P. Xu, Y. Yang, S. D. Barber, J. K. Schoelz, **D. Qi**, M. L. Ackerman, L. Bellaiche, and P. M. Thibado, *Carbon 50, 4633*

A pathway between Bernal and rhombohedral stacked graphene layers with scanning tunneling microscopy P. Xu, Y. Yang, **D. Qi,** S. D. Barber, M. L. Ackerman, J. K. Schoelz, T. B. Bothwell, S. Barraza-Lopez, L. Bellaiche, and P. M. Thibado, *Applied Physics Letters 100, 201601*

High-percentage success method for preparing and pre-evaluating tungsten tips for atomic-resolution scanning tunneling microscopy J. K. Schoelz, P. Xu, S. D. Barber, **D. Qi**, M. L. Ackerman, G. Basnet, C. T. Cook, and P. M. Thibado, *Journal of Vacuum Science and Technology B 30(3), 033201*

Atomic control of strain in freestanding graphene P. Xu, Y. Yang, S. D. Barber, M. L. Ackerman, J. K. Schoelz, **D. Qi**, I. A. Kornev, L. Dong, L. Bellaiche, S. Barraza-Lopez, and P. M. Thibado, *Physical Review B 85, 121406(R)*