

Lydia Y. Chen

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EDUCATION

PENN STATE UNIVERSITY

DUAL PHD OPERATIONS RESEARCH AND
INDUSTRIAL ENGINEERING
2002–06 | PA, USA

NATIONAL TAIWAN UNIVERSITY

BACHELOR
1997–2002 | Taipei, Taiwan

LINKS

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TEACHING

QUANTITATIVE METHODS FOR COMPUTING SYSTEMS

10-week MSc-level course at TU Delft.
Focus on statistical inferences, stochastic modeling, and machine learning models.

PERFORMANCE MODELING FOR COMPUTING SYSTEMS

10-week BSc-level course at TU Delft.

KEYNOTE TALKS

- UCC19 • ISSRE19
- ISPD19 • DCPerf19

CONFERENCE TPC

- IJCAI • WWW • EuroSys • DSN
- INFOCOM • ICDCS • Middleware
- IPDPS • ICAC • ICPP
- CCgrid • OPODIS • SRDS
- Mascots • ICPE • HotCloud
- IC2E • ICC • Globecom
- ICCD • GreenMetrics

EXPERIENCE

TU DELFT | ASSOCIATE PROFESSOR

2018 – present | Delft, The Netherlands

- Supervision of four PhD students and one post-doctoral research fellow
- Awarded a Delft Technology Fellowship and an Aspasia grant

ACADEMIA SINICA | ADJUNCT ASSOCIATE RESEARCHER

2019 – present | Taipei, Taiwan

IBM RESEARCH | RESEARCH STAFF MEMBER

2007 – 2018 | Switzerland

- Led and participated in projects to optimize performance of high-performance computing interconnect, web service systems, cloud datacenter discovery, cognitive threat insights platform, key protection, and cognitive appliances
- Received two scientific achievement awards
- Advisor to two post-doctoral research fellows, 11 PhD student interns, and two Master's theses
- Filed 15+ patent applications and awarded four patent plateaus

LEADERSHIP AND AWARDS

- Associate editors for IEEE Trans. on Distributed and Parallel Systems, IEEE Trans. on Service Computation and IEEE Trans. on Network and Network Management
- Conference co-chair for ICAC19, Middleware18, ICDCS18, DIAS17, ICNC14, and ICNC13
- Best paper awards at IEEE CCGrid15 and eEnergy15

RESEARCH

Published **90+** peer-reviewed proceedings and journal articles. Recent articles on privacy, dependability, and machine learning systems include:

- “SlimML: Removing Non-critical Input Data in Large-scale Iterative Machine Learning.” IEEE Trans. on Knowledge and Data Engineering, 2019
- “Robust Anomaly Detection on Unreliable Data.” IEEE Conf. on Dependable Systems and Networks, 2019
- “Workload-adaptive Configuration Tuning for Hierarchical Cloud Schedulers.” IEEE Trans. on Parallel and Distributed Computing, 2019
- “Differential Approximation and Sprinting for Multi-Priority Big Data Engines.” ACM Middleware, 2019
- “Automatic Privacy and Utility Preservation for Mobility Data: A Nonlinear Model-Based Approach.” IEEE Trans. on Dependable and Secure Computing, 2019

SELECTED RESEARCH GRANTS

Raised funding of more than **2.2 million €**, with the following selected projects:

WiBD (384 kCHF). Swiss National Science foundation (SNSF), NRP 75 big data program to promote gender diversity in data science, ethics and applications, 2019.

DTF (200 k€). Delft technology fellowship on slim big data discovery, 2018.

Dapprox (610 kCHF). SNSF NRP 75 project to explore spatial and temporal dependencies for anomaly prediction and management in the cloud, 2017.

GENiC (640 k€). European FP7 project to globally optimize datacenter energy management, workpage lead from IBM, 2013.

LoadOpt (450 kCHF). SNSF project to model and optimize load executions on multi-core systems, co-PI, 2012.