LI Yefeng (zh: 李烨锋)

li3915@purdue.edu
+852 56895775 or +86 13238191225

EDUCATION

- **Purdue University** — West Lafayette, IN, USA
  Doctor of Philosophy student in Computer Science — *Incoming*

- **Hong Kong University of Science and Technology (HKUST)** — Hong Kong S.A.R.
  Master of Philosophy in Computer Science and Engineering — *Sep. 2018 – June 2020*

- **Hong Kong University of Science and Technology** — Hong Kong S.A.R.
  Bachelor of Engineering in Computer Engineering; Minor in Robotics — *Sep. 2014 – June 2018*

RESEARCH

- **VisGraph Lab, CSE, HKUST** — Hong Kong
  M.Phil. student; advised by Prof. Quan Long — *Aug. 2018 – May 2020*
  - **Manifoldness Preserving Contraction (M.Phil. thesis)**: Designed a new contraction method that guarantees manifold output given a manifold input by augmentation and the separation of singularities. It can be applied to geometry processing as a replacement to the conventional contraction operation which may destroy topology.
  - **Triangle mesh simplification**: Used new contraction techniques to improve triangle mesh simplification; facilitated the parallelization in Levels-of-Detail generating process using 2D-projection of tile boundaries.

- **HKUST** — Hong Kong
  Undergraduate final-year student; advised by Prof. Brahim Bensaou — *Sep. 2017 – Mar. 2018*
  - **Centralized Wireless Local Area Networks (final-year thesis)**: Specified a centralization protocol for Wireless LANs as an (software-defined networking) extension atop CSMA/CA to explore the improvement of resource utilization in dense indoor networks. It was partically implemented in C based on hostapd's source code and experimented on OpenWrt embedded Linux system.

- **VisGraph Lab, CSE, HKUST** — Hong Kong
  Undergraduate Research Opportunity Program participant; advised by Prof. Quan Long — *Aug. – Nov. 2016*
  - **Photograph capturing with drones**: Investigated in the application of Computer Vision and Graphics for Android devices as remote controls for drones, with a focus on human-drone interaction.

INDUSTRIAL

- **Everest Innovation Technology (now acquired by Apple Inc.)** — Shenzhen & Hong Kong, China
  Researcher and Software Developer — *June. – Aug. 2019*
  - **Triangle mesh processing**: Transferred novel geometry processing techniques into *Altizure*, a world-class cloud-based 3D reconstruction platform; developed efficient mesh processing program in C++.
  - **ZRPC**: Participated in the development of *ZRPC*, an RPC distributed computing framework, in Go.
  - **Data management and visualization**: Developed a photographic data validation, management, and visualization desktop application in JavaScript.

- **Dash Serviced Suites** — Hong Kong
  Part-time JavaScript Developer — *Feb. – May 2018*
  - **Web development**: Worked on the Web interface, API, and database management of *DASH2*, an online marketplace Web application.

TEACHING

- **COMP1021: Introduction to Computer Science, HKUST** — Hong Kong
  Teaching Assistant — *Sep. – Dec. 2019*

- **COMP3311: Database Management Systems, HKUST** — Hong Kong
  Teaching Assistant — *Sep. – Dec. 2018*

Extracurricular

- **ACM SIGPLAN Symposium on Principles of Programming Languages** — New Orleans, LA, USA
  Student Volunteer — *Jan. 2020*
  - Supported event organization.

- **RoboMaster Robotics Competition** — Shenzhen, China
  Mechanical/Computer Engineer — *Feb. – Aug. 2017*
  - Co-designed the mechanical structure of *Hero*, the main-force in this multi-robot contest, for RoboMaster HKUST team. Our Hero robot was controlled remotely, capable of capturing, storing and shooting bullets, climbing onto stairs with telescopic legs.

- **Chinese Folk-Art Society, HKUST** — Hong Kong
  IT Secretary, Executive Committee — *Feb. 2015 – Feb. 2016*
  - Independently built society's official website and developed a Web application in JavaScript to assist hosting knowledge competition *Who is Still Standing*.
  - Took charge of photographing and online platform promotions.
  - Organized trips to the Yangzi, China and Dragon's Back, Hong Kong.