

Zhiyuan Teo, B.S. Computer Science with highest honors (Univ. of Illinois, 2009)
M.S. Computer Science (Cornell University, 2015)
Ph.D. Computer Science (Cornell University, 2016)

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SUMMARY:

- CEO, Ironstack.
- Postdoctoral Associate at Jacobs Technion-Cornell Institute at Cornell Tech.
- Doctor of Philosophy in Computer Science (data networks specialization).
- Former software engineering intern at Facebook, Inc.
- Research Engineer at the Agency for Science, Technology and Research (A*STAR), Institute for Infocomm Research (I²R).
- Military officer (1st lieutenant), Singapore Armed Forces (Naval Branch).
- Singapore Government Scholarship, Public Service Commission, 2007.
- National Science Scholarship for Ph.D. studies, A*STAR, 2009.
- Proficient in C, C++, Java, Verilog, x86 and MIPS assembly, Adobe Photoshop, Adobe Illustrator, Adobe Premiere, Adobe After Effects, MATLAB and Autodesk Inventor.

EDUCATION: Doctor of Philosophy (Ph.D.) in Computer Science, Aug 2016
Master of Computer Science, May 2015

Cornell University, cumulative GPA: 4.11/4.30

- Successfully defended Ph.D. thesis “Overcoming Challenges in Practical SDN Deployment. Advisors: Ken Birman, Robbert Van Renesse, Nate Foster and Ao Kevin Tang.
- Specialization in data networking, computer network security, operating systems and cloud computing; internal minor in Programming Languages and external minor in Electrical and Computer Engineering.
- Teaching assistant for operating systems, advanced operating systems, cloud computing and network security classes (spanning undergraduate, masters and PhD-level classes).
- Outstanding TA award for teaching Operating Systems Practicum (Fall 2011).
- Inducted into Tau Beta Pi national engineering honors society in March 2014 (together with Cornell University President David Skorton).
- Biometric Wireless Pen Drive and Gesture-Controlled FPGA-based iPod Music Dock (ECE projects) featured on various websites.
- Chocobot, a chocolate 3D printer (Rapid Prototyping project) featured at Ithaca Sciencenter.

Bachelor of Science in Computer Science, summa cum laude, May 2009

University of Illinois at Urbana-Champaign

- Graduated with highest honors, cumulative GPA: 3.95 / 4.00
- University Honors (a.k.a. the Bronze Tablet), May 2009.
- Greek honors (summa cum laude), College of Engineering, May 2009.
- Edmund J. James Scholar, 2009.
- James N. Snyder Outstanding Undergrad in Computer Science, Spring 2008.
- C. W. Gear Outstanding Undergraduate in Computer Science, Spring 2009.
- Inducted into Phi Beta Kappa academic honor society in Spring 2008.

PUBLICATIONS:

- Teo, Z., Birman, K. and Van Renesse, R. Experience with 3 SDN Controllers in an Enterprise Setting, DSN 2016.
- Teo, Z., Birman, K., Apthorpe, N., Van Renesse, R. and Kuksenkov, V. Treating Software-Defined Networks Like Disk Arrays, NetSoft 2016.
- Teo, Z., Birman, K. and Van Renesse, R. Ironstack: Performance, Stability and Security for Power Grid Data Networks, DSN 2014.

EXPERIENCE: CEO Ironstack, Jun 2013 to present

- Selected for funding by Cornell Tech Runway Postdoc startup program, 2016.
- Built an OpenFlow 1.0/1.3 network controller adopted by the department of Computer Science at Cornell University.
- Controller has continuously driven Cornell University Computer Science SDN at Gates Hall for over 18 months, with approximately 300 production systems and servers used by over 1000 students and faculty members.
- Two patents pending for network switch hardware augmentations.
- Mentored and managed a team of undergraduate, graduate and PhD student researchers and developers.

**Software Engineering Intern at Facebook Inc., Jun 2013 to Aug 2013
(Also Jun 2014 to Aug 2014)**

- Interned with the cloud computing (2013) and network systems (2014) teams.
- Assisted with and completed several projects that collectively manage Facebook's entire cloud computing resources.
- Aided with the construction and maintenance of low-level systems and driver code for Facebook's network switches.

**Research Engineer at Agency for Science, Technology and Research
(A*STAR), Jun 2009 to Jul 2011**

- Research Engineer at the Institute for Infocomm Research (I²R).
- Completed a prototype peer-to-peer delivery system for scalable video.