Yiran Irene Fan | Curriculum Vitae

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Education

[Master of Science in Engineering, Computer Engineering] — [Princeton University, NJ] [2016 — 2018]

[Bachelor of Science] — [Trinity University, TX] — Cumulative GPA: 3.84 [2011— 2015]
- Major I: BS, Computer Science with Honors — GPA: 3.91
- Major II: BA, Business Administration — GPA: 3.85
- Minor: Management Information Systems

Awards

[Babbage & Lovelace Distinguished Computing Award] — [Trinity University] [2015]
- Top 1 of the department.

[21st Place, ACM ICPC South Central Regional (no preparation)] [2014]

Related Experiences in Computer Science

[CS Lab TA Coordinator] - [Princeton University, NJ] [2017-Present]
- Manage the CS lab and 50 lab TAs, hold training sessions and regular meetings, and improve the current system the lab runs under.

[Assistant in Instruction, COS226: Data Structures and Algorithms] - [Princeton University, NJ] [2016-2017]
- Lead or assist in weekly lectures, hold office hours, grade assignments, and mentor students with difficulties.

[Project: Image Segmentation with Aerial Images Taken with A Drone] [2016]
- Part 1: an iPhone application in Objective C that provides a preview of the drone's camera view and captures photos when the capture button is pressed by the user.
- Part 2: the application of image segmentation techniques on aerial images. Methods tried: k-means and graph-based.

[Software Engineering Intern] — [Rackspace Headquarters, TX] [2014]
- Designed and implemented automation for the CRM system and the NPS reporting process that are now in use in both the headquarters and the London office.
- Participated in development of an internal ticket/report system.
- Introduced and implemented new features for the internal website.

[Project: RGBD Image Composition] [2016]
- Takes in multiple images, composes them into polygons, and outputs a "stitched" image with diffuse albedo texture.

[Project: Face Detection] [2016]
- Used Histogram of Oriented Gradients techniques, non-maximum suppression, linear regression and logistic regression to train a model that detects human faces.

[Undergraduate Senior Honors Thesis: "Locating Camera Position in 3-D Space from Distinct Features of Architecture on 2-D Image"] [2015]

- Aimed to develop an algorithm to estimate camera position in space.
- Experimented and analyzed the full implementation tailored to the Cathedral of Notre Dame.
- Provided an algorithmic outline for a generalized method.

[Project: "Beethoven"] [2013]

- Implemented the rotation of a 3-D Beethoven bust about an arbitrary axis with mouse input.

[Project: Market Pricing Application] [2013]

- Implemented a paralleled application in Haskell that allows user to input datasets with buyer and seller information, then calculates the theoretically optimal pricing of certain goods.

Experiences in Business

[Team Leader, GLO-BUS Business Strategy Simulation Competition] — [Trinity University, TX] [2015]

- Achieved 1st place among the class of 2015.
- Was invited to the triannual International Best-Strategy Invitational.

[Team Leader & Product Engineer, "Chromixx"] — [Trinity University, TX] [2015]

- Led a team of 4 and pitched the business plan to a panel of 5 investors.
- One of the investors commented that it was "the most novel and ground-breaking pitch" over his 30 years of being an investor.

Other Experiences

[Music and Other Art-Related Activities] [2002-Present]

- 8 years in choir; lead vocalist, back-up guitarist, and songwriter in two bands; held band concerts; stage manager, dancer and choreographer for college events; award winning songwriter; Illustrator for a food blog.

[English Teacher] — [Warsaw, Poland] [2016]

- Taught college students and professionals (age 18-38) conversational English through discussions and debates on current social and political issues such as abortion, feminism and the world refugee crisis.

[Business Student Panelist and Representative] — [School of Business, Trinity University] [2013-2015]

[President, Chinese Culture Club] — [Trinity University, TX] [2013-2014]

Skills and Languages

C++, Java, Scala, MATLAB, Processing, Haskell, SQL, HTML, CSS
Mandarin Chinese, English