

Fernando Torre, Ph.D.

Senior Software Engineer and Technical Lead

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Multilingual Software Engineer with a Ph.D. in Computer Science, over 10 years of experience in Frontend Development and UI/UX design, 7 years of research experience, and 4 years of teaching experience, who has worked in 4 different countries and with cross-cultural and distributed teams.

TECHNICAL SKILLS

HTML5, CSS, UI Design & Evaluation, React.js, Redux, Java, Python, JavaScript, Typescript, jQuery, Responsive Web Design, Accessibility (WCAG and ARIA), Figma, Storybook, Android, PostgreSQL, SQLite, Matlab, Git, I10n/i18n, Data Mining & Data Science, Agile Development.

SOFT SKILLS

Teaching, Presentation Skills, Cross-Cultural Awareness, Mentoring, Adaptability, Open-mindedness, Empathy, Interpersonal Skills, Emotional Intelligence, Creativity, Working with Distributed Teams.

LANGUAGES

Fluent: **English, Spanish**, Advanced: **Japanese** (JLPT N2), Intermediate: **Chinese** (HSK 2), Basic: **Russian, Korean**.

EDUCATION

Ph.D., Computer Science (2014) - University of Minnesota, Twin Cities, MN

Certificate, MBA Essentials (2013) - University of Minnesota, Carlson School of Management

B.S., Computer Engineering (2007) - Magna Cum Laude, University of Puerto Rico, Mayagüez, PR

EXPERIENCE

Industry

Senior Software Engineer/Technical Lead, DMM Eikaiwa, Tokyo, Japan (Jun 2018 - Present)

Used React and Typescript to further develop our online English class platform, a world-class video conferencing platform used by over 10,000 teachers to teach over 80,000 students, totaling over 12 million lessons per year. Used Agile Methodologies combined with Continued Development to continually improve our services.

Led and implemented the revamping of the system used to recruit and onboard hundreds of new teachers each month, improving the signup and interview flow and developing an integrated contract signing solution. As part of this initiative, collaborated with the recruitment team, distributed across several countries, to understand their internal processes and needs.

Front End Engineer, The Nerdy, Bloomington, MN (Jul 2017 - Mar 2018)

Developed the front-end side of web projects for clients. Among these, accessibility improvements for an enterprise Angular site, WordPress plugin development, and conference and webinar talks on Behavioral Analytics.

Founder and Lead Developer, Perapera Labs, Minneapolis, MN (Nov 2014 - Jan 2017)

Created an Android app for learning Japanese and the internal web tool required to edit the content. Managed a team of about 3-5 mostly non-technical members. Other responsibilities ranged from paper prototyping and design to creating business plans and marketing.

Intern, IBM, Burlington, VT, Rochester, MN, and Poughkeepsie, NY (Summers 2004 - 2007)
Worked on new server technologies as part of the highly selective Extreme Blue Speed Team program. Wrote test cases, measured software performance, and updated documentation.

Research

Research Assistant, GroupLens Lab, University of Minnesota (Jun 2008 - Oct 2014)
Contributed to the design, implementation, and research of an innovative geographic wiki for cyclists called Cyclopath, using ActionScript, Python, and PostgreSQL. Planned and developed its mobile Android version. Participated in code reviews, developed critical thinking skills, and presented my work at research conferences.

Researcher, Sino-European Usability Center, Dalian Maritime University (May 2012 - Aug 2012)
As part of an NSF EAPSI Fellowship (granted to only 200 students nationwide), conducted cross-cultural studies of Cyclopath with Chinese cyclists in Dalian, China.

Research Assistant, Data Mining Lab, University of Minnesota (Sep 2007 - Sep 2008)
Implemented various clustering algorithms using climate data sets with high dimensionality.

Research Assistant, University of Puerto Rico (Jan 2006 - May 2007)
Helped develop and debug a database application used by government offices.

Teaching

Instructor, Intro to Web Design (HTML5 & CSS), Saint Paul Community College (Aug 2014 - May 2017)
Used active learning techniques to teach an introduction to HTML and CSS for three years to students that were diverse in both age and familiarity with computers, receiving excellent feedback from students.

Teaching Assistant, User Interface Design, University of Minnesota (Sep 2012 - Dec 2012)
Met weekly with more than 10 project teams designing user interfaces to give feedback and grade their progress. This included evaluating their use of Paper Prototypes, User Interviews, Cognitive Walkthroughs, and Heuristic Evaluations.

Instructor, Structure of Computer Programming II, University of Minnesota (Jun 2010 - Aug 2010)
Designed and taught an introductory college course to Java and data structures.

Teaching Assistant, User Interface Design, University of Minnesota (Sep 2008 - Dec 2008)

Teaching Assistant, Intro to Internet Programming, University of Minnesota (Jan 2008 - May 2008)
Graded assignments and exams, held office and lab hours, and lectured.

PUBLICATIONS

Torre, F., Sheppard, S. A., Friedhorsky, R., Terveen, L., bumpy, caution with merging: An Exploration of Tagging in a Geowiki, *Proceedings of the ACM 2010 International Conference on Supporting Group Work*, Nov 7-10, 2010, Sanibel Island, Florida, USA.

Torre, F., Pitchford, D., Brown, P., Terveen, L., Matching GPS Traces to (Possibly) Incomplete Map Data: Bridging Map Building and Map Matching, *Proceedings of the 20th ACM SIGSPATIAL International Conference on Advances in Geographic Information Systems*, Nov 6-9, 2012, Redondo Beach, California, USA.

Torre, F., Liu, Y., Liu, Z., Terveen, L., Local Knowledge Matters for Crowdsourcing Systems: Experience from Transferring an American Site to China, *Proceedings of the 7th International AAAI Conference on Weblogs and Social Media*, July 8-10, 2013, Boston, Massachusetts, USA.

Torre, F. Techniques for Improving Routing by Exploiting User Input and Behavior, PhD diss., UMN, 2014.