

Xinwei (David) Yao

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[Address redacted]

EDUCATION

Stanford University

Ph.D in Computer Science
expected June 2023 | Stanford, CA

Yale University

B.S. in Intensive Mathematics and
Computer Science

summa cum laude. 3.99/4.00
May 2016 | New Haven, CT

Universidad de Deusto

Summer Program in Spanish
July 2013 | Bilbao, Spain

EXPERTISE

Computer Science

Software Engineering
Distributed Systems
Computer Vision & Graphics
Machine Learning

Math

Measure Theory & Probability
Spectral Graph Theory
Real & Complex Analysis
Abstract Algebra

SKILLS & INTERESTS

Programming

Git • C/C++ • Python • JavaScript •
Haskell • Ruby • Matlab • \LaTeX

Languages

Native Mandarin • Proficient Spanish

Interests

Film • Spanish • Linguistics

SOFTWARE PROJECTS

davidyao.me

June 2015 | NodeJS, HTML
Personal website

MIDI Visualizer

Apr 2015 | Haskell
Midi music player with GUI

Envy My Simplex

Dec 2015 | JavaScript, WebGL
First-person shooter game

RESEARCH

Stanford Computer Science | Research Assistant

Sep 2018 - Present | Stanford, CA

- First-year rotation with Ron Fedkiw at **Stanford AI Lab** on face tracking for motion capture in film special effects, with Kayvon Fatahalian at **Graphics Lab** on large-scale video analytics, and (prospective) with Maneesh Agrawala at **Brown Institute** on video editing interfaces.

Yale University | Research Assistant

Feb 2015 - May 2016 | New Haven, CT

- Designed and implemented software systems AnnoPred and GenoWAP to leverage functional annotations in genetic applications, advised by Qiongshi Lu at **Yale School of Public Health**.
- Senior thesis on the hardness of approximating l_0 -regularization of 2-Laplacian minimization, advised by Daniel A. Spielman at **Yale Institute of Network Science**.

PROFESSIONAL EXPERIENCE

Google LLC | Software Engineer

Aug 2016 - July 2018 | New York, NY

- Worked in **C++** on a planet-scale Search Engine platform that consumes indices with trillions of documents to answer tens of millions of search queries per second, powering WebSearch, YouTube and hundreds of other Google products.
- Collaborated with product teams who use the platform, improved hotel search latency by **50%** and WebSearch tail latency by up to 5%, and reduced Google Now cards serving cost by **25%**. Co-led the private-data working group with expertise on safe-handling of user data and **GDPR**-compliance in the Search Engine.
- Taught internal courses on Machine Learning with **Tensorflow**, and WebSearch overview to hundreds of Google engineers and received over **95%** favorable rating.
- Consistently received **superb** performance ratings (top 4%) during my 2nd year.

Infor-Med | Software Development Intern

June 2014 - Aug 2014 | Buenos Aires, Argentina

- Reduced 90% of software setup time with new Installer for Windows using **WiX Toolset** and SQL scripts, for PraxisEMR.

TEACHING

Yale University | Tutor & Grader

Feb 2015 - May 2016 | New Haven, CT

- Tutored CPSC 365: Design and Analysis of **Algorithms** and CPSC 202: Mathematical Tools for Computer Science.
- Graded student homework for MATH 370: **Galois Theory**.

HONORS & AWARDS

2016.5	Res. College	JE Fellows' Prize for Highest Academic Standing
2016.5	Math Dept.	DeForest Senior Mathematical Prize
2014.12	63 rd /4320	Honorable Mention in Putnam Mathematical Competition
2014.9	1 of 10	Junior Inductee to Phi Beta Kappa Society
2014.4	Winner	Yale CIPE Fellowship for the Study of Latin America