Stanford



Jerry Yang

Postdoctoral Scholar, Electrical Engineering

Curriculum Vitae available Online

Bio

BIO

Jerry A. Yang is a PhD student in electrical engineering at Stanford University. He received his BS in electrical engineering from the University of Texas at Austin and MA in Education from Stanford University. He currently works on strain engineering in two-dimensional materials in Prof. Eric Pop's lab. In addition, he works on equity issues in engineering education in Prof. Sheri Sheppard's Designing Education Lab. His research interests span novel materials, devices, and systems for next-generation computing, engineering education research methods, and critical theories in engineering education. He is a student member of the Institute for Electrical and Electronics Engineers (IEEE), Materials Research Society (MRS), and American Society of Engineering Education (ASEE).

HONORS AND AWARDS

- ARCS Fellowship, Achievement Rewards for College Scientists (ARCS) (2024-2025)
- NSF Graduate Research Fellowship, National Science Foundation (2020-2025)

BOARDS, ADVISORY COMMITTEES, PROFESSIONAL ORGANIZATIONS

- Student Member, Materials Research Society (2022 - present)
- Student Affiliate, American Society of Engineering Education (ASEE) (2018 - present)
- Member, Institute of Electrical and Electronics Engineers (IEEE) (2017 - present)
- Student Member, National Science Teachers' Association (2017 - 2019)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , EE-PHD (2026)
- Master of Arts, Stanford University , ED-MA (2023)
- MA, Stanford University , Education (2023)
- BS, University of Texas at Austin , Electrical and Computer Engineering (2020)

STANFORD ADVISORS

- Eric Pop, Postdoctoral Faculty Sponsor

LINKS

- ORCID: https://orcid.org/0000-0001-5521-8523
- Google Scholar: https://scholar.google.com/citations?user=qyYPd5QAAAAJ&hl=en

Research & Scholarship

LAB AFFILIATIONS

- Krishna Saraswat, Saraswat Group (1/11/2021)
- Eric Pop, Poplab (9/14/2020)
- Sheri Sheppard, Designing Education Lab (9/14/2020)

Publications

PUBLICATIONS

- **Scaling nanoribbon transistors with monolayer transition metal dichalcogenides.** *Nature nanotechnology*
  Peña, T., Persson, A. E., Krayev, A., Friðriksdóttir, Á., Su, H., Lee, Y. M., Song, Y. S., Neilson, K., Zhang, Z., Hoang, A. T., Yang, J. A., Hoang, L., Wang, et al
  2026

- **Excitation Laser Energy Dependence of the Gap-Mode TERS Spectra of WS₂ and MoS₂ on Silver** *ACS PHOTONICS*
  Krayev, A., Isotta, E., Hoang, L., Yang, J. A., Neilson, K., Wang, M., Haughn, N., Pop, E., Mannix, A., Balogun, O., Wang, C.
  2025

- **First Comparative Thermal Evaluation of 2D Semiconductor vs. Silicon Nanosheet Transistors**
  Song, Y., Su, H., Pena, T., Persson, A. E. O., Yang, K., Yalon, E., Bennett, R. K. A., Han, Z., Neilson, K., Kang, J., Yang, J. A., Wong, H., Wang, et al
  IEEE.2025

- **Understanding the Impact of Contact-Induced Strain on the Electrical Performance of Monolayer WS2 Transistors.** *Nano letters*
  Hoang, L., Jaikissoon, M., Köroğlu, Ç., Zhang, Z., Bennett, R. K., Song, J. H., Yang, J. A., Ko, J. S., Brongersma, M. L., Saraswat, K. C., Pop, E., Mannix, A. J.
  2024

- **CMOS-compatible strain engineering for monolayer semiconductor transistors** *NATURE ELECTRONICS*
  Jaikissoon, M., Koeroglu, C., Yang, J. A., Neilson, K., Saraswat, K. C., Pop, E.
  2024; 7 (10): 885-891

- **Biaxial Strain Transfer in Monolayer MoS2 and WSe2 Transistor Structures.** *ACS applied materials & interfaces*
  Michail, A., Yang, J. A., Filintoglou, K., Balakeras, N., Nattoo, C. A., Bailey, C. S., Daus, A., Parthenios, J., Pop, E., Papagelis, K.
  2024

- **Biaxial Tensile Strain Enhances Electron Mobility of Monolayer Transition Metal Dichalcogenides.** *ACS nano*
  Yang, J. A., Bennett, R. K., Hoang, L., Zhang, Z., Thompson, K. J., Michail, A., Parthenios, J., Papagelis, K., Mannix, A. J., Pop, E.
  2024

- **"BARBED-WIRE BOUNDARIES": HIDDEN CURRICULUM, FIRST-GENERATION AND LOW-INCOME ENGINEERING STUDENTS AND INTERNSHIP ACQUISITION** *JOURNAL OF WOMEN AND MINORITIES IN SCIENCE AND ENGINEERING*
  Yang, J. A., Towles, J. D., Sheppard, S. D., Atwood, S. A.
  2024; 30 (5)

- **Flexible Monolayer WS₂-based Pseudo-CMOS Inverters for In-sensor Computing**
  Yang, J. A., Bora, A., Daus, A., Hoang, L., Zhang, Z., Mannix, A. J., Pop, E., IEEE
  IEEE.2024

- **Today's Grad Students, Tomorrow's Faculty LGBTQIA plus Graduate Student Experiences Navigating the Insider/Outsider Paradox in Engineering** *QUEERNESS AS DOING IN HIGHER EDUCATION*
  Bakka, B., Jennings, M., Yang, J. A.
  edited by Cisneros, J., Jourian, T. J., Miller, R. A., Duran, A.
  2023: 142-156

- **LGBTQ plus in ECE: Culture and (Non)Visibility** *IEEE TRANSACTIONS ON EDUCATION*

Yang, J. A., Sherard, M. K., Julien, C., Borrego, M.
2021; 64 (4): 345-352

- **Resistance and Community-Building in LGBTQ+ Engineering Students** *Journal of Women and Minorities in Science and Engineering*
  Yang, J. A., Sherard, M. K., Julien, C., Borrego, M.
  2021; 27 (4): 1-33

- **Buckled beam mechanical memory using an asymmetric piezoresistor for readout** *JOURNAL OF MICROMECHANICS AND MICROENGINEERING*
  Lin, J., Shuvra, P., Yang, J. A., McNamara, S., Walsh, K., Alphenaar, B.
  2020; 30 (7)