Stanford



Bill Yen

Ph.D. Student in Electrical Engineering, admitted Autumn 2023

Curriculum Vitae available Online

Bio

BIO

Bill Yen is a Ph.D. candidate in the Department of Electrical Engineering at Stanford University working in the area of low-power Internet of Things (IoT) systems. He is an interdisciplinary maker and environmental scientist passionate about solving issues related to food, water, and energy using smart technologies.

Yen's experience in industry (General Motors, CNH Industrial) and academic research (Northwestern - soil-powered computing, Stanford - low-power wireless communication) cultivated his interest in designing self-powered computing devices that boost system efficiency while lowering the environmental impact of existing processes. His work has been featured by The Independent, Fast Company, MIT Technology Review China, Hackster.io, and more. He is also a recipient of the Stanford Graduate Fellowship in Science & Engineering.

HONORS AND AWARDS

- Eco-Sprint Fellow, Stanford Ecopreneurship (June 2025)
- Winner of Energy Category, Dubai Future Solutions - Prototypes for Humanity (November 2024)
- Honorable Mentions in Student and Sustainability Categories, Fast Company Innovation by Design (July 2024)
- Ovid W. Eshbach Award, Northwestern University (June 2023)
- Stanford Graduate Fellowship in Science & Engineering, Stanford University (September 2023)

EDUCATION AND CERTIFICATIONS

- Bachelor of Science, Northwestern University , Mechanical Engineering (2023)
- Minor, Northwestern University , Environmental Engineering (2023)
- Segal Design Certificate, Northwestern University (2023)
- LEED AP BD+C, U.S. Green Building Council (2020)

LINKS

- Personal Website: https://billyen33.com
- LinkedIn: https://www.linkedin.com/in/bill-yen/

Research & Scholarship

LAB AFFILIATIONS

- Zerina Kapetanovic (9/25/2023)

Publications

PUBLICATIONS

- **Demo: OSPREE: Drone-Deployable Profiler for Low-Cost Ocean Observation**
  Yen, B., Jacques, T., Nguyen, B., Raigosa, A., Falconer, J., Kapetanovic, Z., ACM
  ASSOC COMPUTING MACHINERY.2026: 185-186

- **SARLink: Satellite Backscatter Connectivity using Synthetic Aperture Radar**
  Ecola, G., Yen, B., Morgado, A., Priyantha, B., Chandra, R., Kapetanovic, Z., ACM
  ASSOC COMPUTING MACHINERY.2025: 398-410

- **Soil-Powered Computing: The Engineer's Guide to Practical Soil Microbial Fuel Cell Design** *Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies*
  Yen, B., Jaliff, L., Gutierrez, L., Sahinidis, P., Bernstein, S., Madden, J., Taylor, S., Josephson, C., Pannuto, P., Shuai, W., Wells, G., Arora, N., Hester, et al
  2024; 7 (4): 1–40

- **Towards Designing Self-Powered Biodegradable Sensors For Agricultural Applications**
  Yen, B., Kapetanovic, Z.
  EnvSys '24: Proceedings of the 2nd Workshop on Advances in Environmental Sensing Systems for Smart Cities. Association for Computing Machinery.
  2024