

Teng-Jui Lin

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Education

University of California, Berkeley | Berkeley, CA, USA

Starting Aug 2023

- Ph.D. student, Chemical and Biomolecular Engineering

University of Washington | Seattle, WA, USA

Sep 2019 - Jun 2023

- B.S. in Chemical Engineering: Nanoscience and Molecular Engineering, *summa cum laude*
- Minor in Applied Mathematics and Chemistry
- Focus Area on Bio & Biomedical Materials, Interfaces, and Systems
- Honors Thesis: Quantifying Microglia Morphological Response to Injury and Treatment Across Species with Unsupervised Machine Learning

Research Experience

Undergraduate Research Assistant

Nov 2020 - Jun 2023

Department of Chemical Engineering, University of Washington, PI: Elizabeth Nance

Summer Undergraduate Research Scholar

Jun 2022 - Aug 2022

NSF Science and Technology Center on Real-Time Functional Imaging (STROBE)

Department of Physics, Florida International University, PI: Jin He

Honors & Awards

Annual Dean's Lists | University of Washington

2020 - 2023

Library Research Award for Undergraduates | University Libraries, University of Washington

2023

Nominee, Dean's Medal for Academic Excellence | College of Engineering, University of Washington

2023

Poster Competition 2nd Place | American Institute of Chemical Engineers

2022

Conference Travel Award | Undergraduate Research Program, University of Washington

2022

Future Leader in ChemE | Dept. of Chemical and Biomolecular Engineering, NC State University

2022

Dan Evans Term Scholarships | Dept. of Chemical Engineering, University of Washington

2021 & 2022

ChemE Hackathon Team 1st Place | Dept. of Chemical Engineering, University of Washington

2022

Mary Gates Research Scholarship | Mary Gates Endowment for Students, University of Washington

2021

ChemE Hackathon Team 3rd Place | Dept. of Chemical Engineering, University of Washington

2021

Presentations

Presenting Author[^]

Oral Presentations

4. **T.-J. Lin[^]**, G. Charpentier[^], L. Miller[^], M. Gokani[^], M. Nelson[^], B. Rutz, O. Lenz. Characterization of silica-based anion exchange resin for acid mine drainage. *Material Science and Engineering & Chemical Engineering Capstone Symposium, University of Washington, Seattle, WA, USA*. 2 Jun 2023.
3. H. Helmbrecht[^], E. Nance, K. Decker, **T.-J. Lin**, S. Janakiraman, M. Onodera. Analysis of microglia morphology across different Nnuroinflammatory rat models. *AIChE Annual Meeting, Phoenix, AZ, USA*. 13 Nov 2022. [Link](#).
2. **T.-J. Lin[^]**, H. Helmbrecht, E. Nance. Incorporating Visually Aided Morpho-Phenotyping Image Recognition into robust microglial shape analysis. *Undergraduate Research Symposium, University of Washington, Seattle, WA, USA*. 20 May 2022. [Link](#).

1. **T.-J. Lin**[^], H. Helmbrecht, E. Nance. Robust microglial shape analysis using Visually Aided Morpho-Phenotyping Image Recognition. *AIChE Pacific Northwest Student Regional Conference, Seattle, WA, USA*. 23 Apr 2022.

Poster Presentations

7. **T.-J. Lin**[^], G. Charpentier[^], L. Miller[^], M. Gokani[^], M. Nelson[^], B. Rutz, O. Lenz. Characterization of silica-based anion exchange resin for acid mine drainage. *Material Science and Engineering & Chemical Engineering Capstone Symposium, University of Washington, Seattle, WA, USA*. 2 Jun 2023.
6. **T.-J. Lin**[^], H. Helmbrecht, R. Jin, T. Wood, E. Nance. Assessing separate and combinatorial treatments in neuroinflammatory preterm ferret model by quantifying microglia and oligodendrocyte morphology. *Undergraduate Research Symposium, University of Washington, Seattle, WA, USA*. 19 May 2023. [Link](#).
5. **T.-J. Lin**[^], H. Helmbrecht, R. Jin, T. Wood, E. Nance. Assessing separate and combinatorial treatments in neuroinflammatory preterm ferret model by quantifying microglia and oligodendrocyte morphology. *AIChE Pacific Northwest Student Regional Conference, Corvallis, OR, USA*. 15 Apr 2023.
4. **T.-J. Lin**[^], H. Helmbrecht, E. Nance. Quantifying microglia morphology across neuroinflammatory rat models with unsupervised machine learning. *Southern California Conference for Undergraduate Research, Malibu, CA, USA*. 19 Nov 2022. [Link](#).
3. **T.-J. Lin**[^], H. Helmbrecht, E. Nance. Quantifying microglia morphology across neuroinflammatory rat models with unsupervised machine learning. *AIChE Annual Student Conference, Phoenix, AZ, USA*. 13 Nov 2022. [Link](#).
2. **T.-J. Lin**[^], H. Helmbrecht, E. Nance. Quantifying microglia morphology across neuroinflammatory rat models with unsupervised machine learning. *Future Leaders in Chemical Engineering Award Symposium, North Carolina State University, Raleigh, NC, USA*. 24 Oct 2022. [Link](#).
1. **T.-J. Lin**[^], A. Rubfiaro, G. Ghimire, J. He. Fabrication and characterization of functionalized gold nanorods for improving engineered cardiac tissue maturation. *Center for Diversity and Student Success Summer Research Symposium, Florida International University, Miami, FL, USA*. 29 July 2022.

Mass Media Appearances

1. (Insights letter) R. Tang, T. Bharani, J. Ding, K. Li, J. Wen, S. D. Gopinath, **T.-J. Lin**, J. X. J. Luo, Q. Wen, K. Davis, N. van Rhijn, Name withheld, S. M. Anderson, R. J. Patel, S. Sarnala, F. S. Oda, G. Singh, N. R. Kothapalli, N. Scott, J. R. Powell, S. N. Kirshner. When internships disappoint. *Science*. 378, 22–24 (2022). DOI: [10.1126/science.ade6397](https://doi.org/10.1126/science.ade6397).

Teaching Experience

Open-Source Chemical Engineering Education (Link)	Jan 2021 – Present
Teaching Assistant, CHEM E 455: Surface and Colloid Science Laboratory <i>Department of Chemical Engineering, University of Washington</i>	Mar 2023 - Jun 2023
Teaching Assistant, Advanced Placement (AP) Calculus <i>Kinglee High School</i>	Sep 2018 - May 2019

Professional Experience

Member, Industry Capstone Project Team <i>Department of Chemical Engineering, University of Washington</i> <i>Membrion, Inc.</i>	Jan 2023 - Jun 2023
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Service

Chemical Engineering Peer Mentor <i>Department of Chemical Engineering, University of Washington</i>	Mar 2023 – Jun 2023
Undergraduate Representative, Faculty Search Committee <i>Department of Chemical Engineering, University of Washington</i>	Jan 2023 – Feb 2023
Undergraduate Research Leader <i>Undergraduate Research Program, University of Washington</i>	Sep 2022 – Jun 2023
Webmaster <i>American Institute of Chemical Engineers (AIChE), University of Washington</i>	Apr 2022 – Jun 2023
Secretary <i>Women in Chemical Engineering, University of Washington</i>	May 2021 – Jun 2023
Research and Development Officer <i>Chinese Students and Scholars Association, University of Washington</i>	Apr 2020 – Jun 2021
Maple Hall Council Sustainability Representative <i>Housing and Food Services, University of Washington</i>	Oct 2019 – Mar 2020

References

Elizabeth Nance | eanance@uw.edu

Department of Chemical Engineering, University of Washington

Jagjeet and Janice Bindra Endowed Career Development Associate Professor

ChemE Associate Chair for Undergraduate Studies

Jim Pfaendtner | jpfaendt@uw.edu

Department of Chemical Engineering, University of Washington

Steven and Connie Rogel Endowed Professor

ChemE Department Chair

John Berg | spc@uw.edu

Department of Chemical Engineering, University of Washington

Rehnberg Chair Professor

Alex Prybutok | prybutok@uw.edu

Department of Chemical Engineering, University of Washington

Assistant Teaching Professor