

# ZHESHENG (JASON) XU

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## EDUCATION

**Pomona College** (Expected May 2026)

Claremont, CA

*Bachelor of Arts: Neuroscience/Data Science (minor), GPA: 3.86/4.0*

### Relevant Coursework:

- Neuroscience (Lab mostly attached): human brain, neuropharmacology, neurobiology, genes and behavior
- Chemistry (Lab attached): organic chemistry
- Biology (Lab attached): genetics, cellular biology
- Data Science & Math: foundations of data science, statistics with R, introduction to python, linear algebra, multivariable calculus

## SKILLS

**Computing:** Microsoft Excel (Proficient), Python (Familiar), R Studio (Familiar), SAS (Beginner)

**Languages:** Mandarin (Native), English (Fluent), Shanghainese (Native)

**Laboratory:** Extracellular and Intracellular electrophysiology, Y-maze spatial reference memory assay, Rodent caretaking, *C. elegans* picking, Fluorescent Microscopy, Functional Near-infrared Spectroscopy

**Model Organism Familiarity:** Mice (Familiar), *C. elegans* (Familiar), *Drosophila* (Decent)

## RESEARCH EXPERIENCE

### POMONA COLLEGE NEUROSCIENCE DEPARTMENT

Claremont, CA

Relevant Independent Projects (Full reports written)

- Ghrelin's effect on Long Term Potentiation of mice hippocampal neurons Oct – Nov 2024 (5 weeks)
  - Designed and performed the experiment in reference to the literature
  - Administered Theta-Burst Stimulation on multiple mice hippocampal slices
  - Wrangled 3000+ data points and performed statistical analysis
- Ghrelin's effect on spatial reference memory of Alzheimer vs Wide Type mice Oct 2024 (4 weeks)
  - Performed Y-maze assay on 20 mice
  - Wrangled 1000+ data points and performed statistical analysis
- Melatonin's effect on synaptic strength of *C. elegans* Dorsal A-type Motor Neuron during development Oct 2023 (3 weeks)
  - Analyzed light intensity associated with GFP tagged synaptobrevin under fluorescent microscopy
  - Analyzed behavioral assay including head touch and thrashing

Research Assistant – Neuroimaging Lab

Jan 2023 – Present

- Developed computer-based visual experiment, which was the first to utilize visual, real-world based cues to elicit prospective memory
- Managed the neuroimaging device (fNIRS) which allowed the group to run 60+ subjects
- Presented findings at the Pomona College Summer Symposium

Animal Technician – Neurobiology Lab

Aug 2023

- Managed 50+ mice with different experimental conditions

### MARSHFIELD MEDICAL CENTER

Marshfield, WI

Research Assistant – Surgical Oncology Research

May – Aug 2024

- Updated 40+ new patient history and analyzed a repository of 100+ patient data
- Collaborated with surgical oncologists to analyze the post-operative outcomes of patients undergoing robotic cytoreductive surgery and heated intraperitoneal chemotherapy in comparison to other treatments
- Contributed to a rare case report of an Angiosarcoma arising from a Schwannoma
- Presented findings at the Marshfield Clinic Symposium, Wisconsin Surgical Society, Society of Surgical Oncology

### POMONA COLLEGE CHEMISTRY DEPARTMENT

Remote

Research Assistant – Chemical Education

July – Sep 2023

- Analyzed 200+ student response to study propositional knowledge in chemical education
- Acknowledged in the 27<sup>th</sup> International Conference on Chemistry Education for our contributions

## AWARDS

- Passion For Impact Volunteer Award, Draper Center for Community Partnerships April 2024
- Summer Undergraduate Research Program (SURP), award total: \$4200 May – Aug 2023
- Pomona College Internship Program (PCIP) × 2, award total: \$3600 Fall 2023 and Spring 2025

## PRESENTATIONS

Baron, E., Nikiforchin, A., Paro, A., **Xu, Z.**, Wernberg, J., & Sharma, R. Robotic versus Open Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy: A Propensity Score-Matched Study. Society of Surgical Oncology Annual Meeting, March 2025.

Baron, E., **Xu, Z.**, Paro, A., Nikiforchin, A., & Wernberg, J. Robotic versus Open Cytoreductive Surgery with Hyperthermic Intraperitoneal Chemotherapy: A Propensity Score-Matched Study. Advanced Cancer Therapies Meeting, February 2025.

Wu, C.C., **Xu, Z.**, Mohyidin, S., & Sharma, R. Epithelioid Angiosarcoma Arising from Schwannoma (EASS): Report of a Rare Case and Potential of Circulating Tumor DNA (ctDNA) as a Useful Biomarker. Wisconsin Surgical Society Fall Conference, November 2024.

**Xu, Z.**, Comparing the Clinical Outcomes of Robotically-Assisted Procedures and Open Laparotomy in CytoReductive Surgery (CRS) and Heated IntraPeritoneal Chemotherapy (HIPEC) for Peritoneal Carcinomatosis (PC). Marshfield Clinic Summer Research Symposium, August 2024.

Sandi-Urena, S., **Xu, Z.**, Rubin, N. Cross-institutional study: Propositional instruction and competence in chemical symbolic language in college students. 27th International Conference on Chemistry Education, July 2024.

Lee, M., Ryoo, J., Abeciunaite, A., **Xu, Z.**, & Lewis, R. Investigating differences in PFC Activation in Self vs. Other during Prospective Memory Tasks using fNIRS. Pomona College Summer Symposium, September 2023.

EXTRACURRICULARS

<b><u>HEALTH BRIDGES – Non-profit Organization</u></b>	<b>Claremont, CA</b>
Hospital Task Coordinator	Aug 2024 – Present
<ul style="list-style-type: none"><li>• Coordinated shift schedules and provided shift-help for 20 volunteers</li><li>• Trained and onboarded 6 new volunteers: training include translational services and ER tasks</li><li>• Spearheaded the incorporation of a new ER component to original shifts; successfully helped 60+ patients within the first semester</li></ul>	
Translator and Medicare Provider	Jan 2023 – Present
<ul style="list-style-type: none"><li>• Contributed to assisting 800+ patients per year; services include non-medical translations, Medicare assistance and community outreach</li><li>• Provided 240+ hours of volunteer services</li></ul>	
Educational Outreach Volunteer	Aug 2023 – Aug 2024
<ul style="list-style-type: none"><li>• Collaborated with local non-profit on providing workshops and outreaches to local communities</li><li>• Led 2 workshops for high school juniors and parents with the focus on mental health and the college-life</li></ul>	
<b><u>POMONA VALLEY HOSPITAL MEDICAL CENTER</u></b>	<b>Pomona, CA</b>
Emergency Department Volunteer	Aug – Dec 2023
<ul style="list-style-type: none"><li>• Alleviated operative stress in the ER by assisting patient intake and restoring medical supplies</li><li>• Made 25+ beds</li></ul>	
<b><u>POMONA COLLEGE INTERNATIONAL STUDENT &amp; SCHOLAR OFFICE</u></b>	<b>Claremont, CA</b>
Two-time Assistant for the International Student Orientation	2023 and 2024
<ul style="list-style-type: none"><li>• Picked up 40+ students from LAX airport</li><li>• Gave 2 talks on “the academic culture at Pomona” and “life in the US” and coordinated 10+ events</li><li>• Dressed up at Cecil the mascot to build community</li></ul>	