

Terry Chen

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EDUCATION

Boston University

B.S. in Biomedical Engineering, Concentration in Nanotechnology
Cumulative GPA: (To be updated after fall); Dean's List: Fall 2022, Fall 2023

Boston, MA
Expected May 2026

RESEARCH EXPERIENCE

Undergraduate Researcher, Boston University Department of Biomedical Engineering

Sep 2023 – Present

Principal Investigator: Erica D. Pratt, Ph.D.

Project: Developing synthetic peptide probes to evaluate Src kinase activity selectively in colorectal cells for tumor profiling

- Synthesized peptides using Fmoc solid-phase peptide synthesis, analyzed and purified via HPLC/MS, and conjugated using thiol-maleimide chemistry
- Optimized enzyme-substrate kinetics of probe by analyzing impact of tyrosine chirality variations in the transduction sequence through kinase assays
- Worked on development of novel lab procedure for signal normalization in live-cell kinase assays by utilizing optical density to non-invasively count cells
- Started up and maintained various cell lines, including LoVo, K562, U-937, COLO-205, CCD-18Co, and HT-29

TECHNICAL SKILLS

Cell Culture and Analysis: Mammalian Cell Culture, Flow Cytometry, Automated Cell Counting

Protein Biochemistry: Peptide Synthesis, Bioconjugation, Enzyme Kinetics Assay, BCA Assay

Analytical Techniques: ELISA, SDS-PAGE/DNA Gel Electrophoresis

ORAL/POSTER PRESENTATIONS

Oral

1. **T. Chen**, M. Eltze, and E.D. Pratt, "Cancer-Specific SRC Activity Profiling Using Artificial Peptide Probes," STEM Pathways Research Symposium, Boston, MA, April 26 2024

Poster

1. **T. Chen**, M. Eltze, and E.D. Pratt, "Optimizing Phosphorylation Kinetics of Novel Peptide Probe for Non-Invasive Colorectal Cancer Monitoring," Boston University Undergraduate Research Symposium, Boston, MA, October 18 2024

FELLOWSHIPS AND AWARDS

Distinguished Summer Research Fellowship

Jun 2024

- Project proposal competitively selected as one of 12 students for prestigious stipend by Boston University College of Engineering to conduct summer research

STEM Pathways Fellowship

Sep 2023 – Present

- Awarded stipend by the Biological Design Center (BDC) to conduct year-long research project in synthetic biology
- Additionally supported with seminar speaker talks, professional development workshops and mentorship opportunities

LEADERSHIP AND SERVICE

Electric Circuits Lab, *Teaching Assistant*, Boston, MA

Jan 2025 – May 2025

- Led lab section teaching students circuit analysis and design using oscilloscopes, waveform generators, multimeters, breadboards and Arduino Nanos

ENG Tutoring Center, *Tutor*, Boston, MA

Sep 2024 – Present

- Provide academic support to BU College of Engineering students in core engineering classes, including calculus I-III, differential equations, physics I-II, electric circuits and engineering mechanics

Dean's Host/College of Engineering Ambassador, *Volunteer/Tour Guide*, Boston, MA

Jan 2023 – Jun 2024

- Led BU College of Engineering tours for 60+ prospective students, providing information on academic programs and student life
- Volunteered for BU College of Engineering events, including prospective student outreaches, career fairs and graduation ceremonies

- Engage with students at STEM Pathways high school career panels, including hackathons and hands-on laboratory workshops

ACADEMIC PROJECTS

Room Occupancy Monitor

Sep 2023

- Secured first place among eight teams for most effectively presenting a product that meets the client's specified goals
- Designed device to display room capacity by tracking people entering and exiting using an LED matrix, PWM modulation of IR LEDs and receivers, and processing logic with ESP32 and Arduino Uno

Leveraging Data for Informed Car Buying and Selling

Nov 2022

- Analyzed eBay used car sales data set using MATLAB to identify useful trends for future buyers and sellers
- Enhanced skills in data scrubbing, creating plots, and utilizing MATLAB's geobubble function and Classification Learner App

Cats vs. Dogs Image Classifier

May 2024

- Developed algorithm trained on 1,000 images of cats and 1,000 images of dogs to classify new images as cats or dogs
- Various classification methods implemented, including closest average classifier, linear discriminant analysis, quadratic discriminant analysis, and nearest neighbor classifier

ADDITIONAL

Societies: BU Society for Biomaterials (SFB; Outreach Committee), Biomedical Engineering Society (BMES), Society of Asian Scientists and Engineers (SASE), Taiwanese American Student Association (TASA)