Tian Herng Tan

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EDUCATION

Boston University (Boston, MA) **Expected May 2025**

B.A. in Computer Science, Minor in Philosophy

GPA: 3.96

Honors: College of Arts and Sciences Dean's List (6 semesters), National Society of Collegiate Scholars

Relevant Coursework: Computer Networks, Distributed Systems, Graduate Level Databases

SKILLS

Programming languages: Python, Java, Go, SQL, C++, JavaScript, HTML, CSS

Frameworks and tools: Flask, Django, MySQL, PostgreSQL, Unix, Nginx, Apache2, Docker, Podman, Apache NiFi, pm2, Git, LaTeX, MongoDB, SQLite

Language: Fluent speaking, reading, and writing in English, Chinese, Malay and Cantonese

PROFESSIONAL EXPERIENCE

Spark! at Boston University **Apr 2023 - Present**

Software engineering intern

- Designed and implemented database schema for batching multiple bio-sample records to facilitate Harvard University Herbaria's management of over 5 million botanical specimens.
- Containerized PHP web application and MySQL database using Docker and configured hosting on an Ubuntu web server using Docker Compose and the Apache2 HTTP server.
- Designed an "Extract, Transform, Load" data pipeline using Apache NiFi to extract data from web APIs and CSV data sources for Boston Police Index, a police accountability website.

Kolachalama Lab at Boston University **Oct 2023 - Present**

Research Assistant

- Managed a web development team to complete a web app showcasing the latest research on AI-based Kidney Biopsy Assessment, which research paper is published in a Q1 Nephrology journal.
- Deployed the demo web app using pm2 and gunicorn on an Ubuntu machine to facilitate user registration, model performance analysis and user background info aggregation.

PUBLICATIONS

- Meysam Ahangaran, Emily Sun, Khang Le, Jiawei Sun, William M. Wang, **Tian Herng Tan**, Lingkai Yin, Lyle J. Burdine, Zeijko Dvanajscak, Clarissa A. Cassol, Shree Sharma, Vijaya B. Kolachalama (2024) Pilot Study of a Web-Based Tool for Real-Time Adequacy Assessment of Kidney Biopsies, Kidney International Reports, Volume 9, Issue 9, 2024, Pages 2809-2813.

PROJECTS

BU Personal Dining (Winner of "Best College Life Hack" at BostonHacks 2022) **Nov 2022**

- Created APIs using Flask to connect external APIs, the frontend, and a machine learning model for a webapp that displays food menus and uses AI to recommend food items.

Boston Public Works (Top 10 project at Hackbeanpot 2023) **Feb 2023**

- Integrated Analyze Boston's API and Openstreetmap's geocoding API to build an SQLite database for a webapp that visualizes currently ongoing public utility works in the Boston area.
- Developed and designed the user interface and styled the frontend pages with CSS.

LEADERSHIP AND ACTIVITIES

ESP MIT (Cambridge, Massachusetts) **Nov 2022 – Apr 2023**

- Collaborated with another teacher to prepare teaching material and rehearse lecture.
- Presented 4 lectures in total to about 120 total high school students and middle school students.