

Ranchida (Tem) Taepaisitphongse

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Education

University of Michigan

B.S. in Computer Science, Minors in Business and UX Design

Ann Arbor, MI

May 2027

- **GPA:** 3.88/4.00, **Awards:** James B. Angell Scholar, William J. Branstrom Freshman Prize, University Honors
- **Coursework:** Data Structures & Algorithms, Operating Systems, Distributed Systems (IP), Web Systems

Technical Skills

Languages: C++, C, Go, Python, Java, JavaScript, TypeScript, SQL, Bash

Technologies: Linux/Unix, Docker, AWS (EC2, S3), Git, Node.js, FastAPI, PostgreSQL, MongoDB, Firebase, React, Next.js

Experience

Accenture

Software Engineer & Business Analyst Intern

Bangkok, Thailand

Jun–Aug 2025

- Prototyped a gRPC-based decomposition of loan workflows from a third-party monolith, defining Protobuf contracts and typed service interfaces to reduce vendor lock-in, regain roadmap control, and enable deeper workflow customization
- Stabilized REST-based service calls with retry logic, exponential backoff, and request timeouts, reducing downstream failures by 18%, and enabled end-to-end observability through structured logging and request ID propagation
- Translated 20+ business requirements into well-defined REST APIs, enabling parallel development across teams and shortening release cycle times by 10%, directly improving time-to-market for new financial features

Atlas Digital Consulting

Contract Software Engineer

Ann Arbor, MI

Jun–Jul 2025

- Reduced p95 page load latency by 13% under peak traffic, using indexed, cursor-based queries and restructuring Firestore schemas to reduce nested reads and improve query efficiency
- Scaled to 1K+ concurrent users, removing write contention with batched Firestore writes and deterministic state transitions

Zephyr Technologies, Inc.

Software Engineer Intern

Miami, FL

Jan–Apr 2025

- Reduced end-to-end inference runtime by 70%, batching frames for GPU inference and parallelizing frame extraction, preprocessing, and postprocessing, decoupling I/O and compute stages to eliminate pipeline bottlenecks
- Achieved 96% possession detection accuracy across 100+ games using CV with homography mapping and tracking
- Increased robustness across camera setups by normalizing inputs and aligning coordinate systems prior to inference

Infinitas by Krungthai

Data Science Intern

Bangkok, Thailand

Jun–Aug 2024

- Improved fraud detection precision to 92% on 5M+ transactions while lowering false positives by 35% vs baseline, training an XGBoost model on engineered behavioral and transaction features
- Reduced detection latency from 8h → 3h, eliminating redundant preprocessing with feature caching and batching model inference across transaction pipelines to speed up scoring on large datasets

Projects

Instagram Clone | *Python, Flask, SQLite, AWS EC2*

- Reduced query latency by 60% on 100K+ documents, replacing linear scans with inverted indexes and TF-IDF/PageRank-based ranking for efficient retrieval
- Enabled parallel query serving with multithreaded Flask services on AWS EC2, distributing indexing and retrieval workloads across instances

CU Endo | *Node.js, MongoDB, AWS S3, React*

- Supported 15K+ submissions per semester with a MongoDB-backed system and AWS S3 file storage, handling upload, retrieval, and grading workflows
- Accelerated grading and submission queries, indexing high-frequency fields and using aggregation pipelines for efficient filtering and retrieval
- Built responsive UI over large datasets with paginated React views, managing client-side state and incremental data loading

Thread Library | *C++, Multithreading, Synchronization, Unix*

- Developed a user-level C++ thread library on Unix supporting concurrent execution across 50+ CPUs, handling scheduling, context switching, and thread lifecycle management
- Built synchronization primitives including spinlocks, mutexes, and condition variables using atomic operations and FIFO scheduling to ensure thread-safe execution