Theeraj Chandra

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Education

University of Waterloo Sep 2022 – Apr 2027

Bachelor of Applied Sciences in Computer Engineering

- **Relevant courses:** Real-time OS, Databases, Computer Networks, Systems Programming and Concurrency

Technical Skills

Languages: Python, C, C++, Java, TypeScript, MATLAB, Verilog
Libraries & Frameworks: React, PyTorch, OpenCV, pandas, Angular, Next.js, Vue.js
Databases: PostgreSQL, MySQL, MongoDB, Redis

Experience

Software Quality Engineer Intern [Incoming] | *Python, Go, Ruby on Rails, Playwright* Jan 2026 - Apr 2026

StackAdapt *Toronto, ON*

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Software Engineer Intern | *React.js, TypeScript, Material UI* Jan 2025 – Apr 2025

SuperWorld Inc. *Miami, FL*

- Engineered a geolocation-based **virtual check-in** feature for SuperWorld Map using the Haversine formula algorithm, enabling users to authenticate location proximity within a 300m radius, thus enhancing user engagement through location verification
- Played a key role in developing our proprietary **conversational AI interface** powered by Meta LLaMA 3, enhancing user retention through personalized map interactions, persistent chat history, and intuitive mobile-first UX, thus growing active user-base by 36%
- Built a React + TypeScript dashboard with async parallel API calls for real-time KPI updates and interactive Recharts visualizations

Test Engineer Intern | *Azure DevOps, Perl, Postman* Jan 2024 – Aug 2024

First National Financial LP *Toronto, ON*

- Developed **Python** and **Perl** scripts to automate pooling target validation and improve testing processes, ensuring higher reliability and reducing manual efforts by **30%**
- Tested mortgage broker tools for BMO, TD, and Manulife on staging and QA environments, performing **regression**, **UAT**, and **exploratory** tests to validate functionality and client-specific requirements

Projects

BehindTheTick | *Next.js, TypeScript, Tailwind CSS, Node.js, Recharts*

- Engineered a full-stack platform that ingests Senate, House, and Form 4 filings, normalizes data, and streams updates to a responsive dark-themed UI via WebSockets in under 500 ms
- Delivered interactive dashboards with Recharts, and enforced zero-lint TypeScript standards
- Defined a roadmap to integrate a PyTorch-based AI engine trained insider filings for real-time 30-day alpha predictions

Leva | *Python, NodeJS, PostgreSQL*

- Architected Leva, a full-stack B2B FinTech OS to solve the freight industry's critical cash-flow gap by using workflow data as an underwriting engine for embedded trade finance.
- Engineered the secure, multi-tenant backend using FastAPI (Python), a service-oriented architecture, PostgreSQL, Alembic migrations, and JWT authentication.
- Developed the professional React/TypeScript frontend using React Query for asynchronous server-state caching/mutations and Zustand for lightweight global auth state.

RTOS Kernel | *C, ARM Assembly*

- Developed a preemptive RTOS kernel from scratch for ARM Cortex-M4, supporting 16 concurrent tasks with EDF scheduling algorithm
- Implemented kernel primitives including SVC-based system calls, PendSV/SysTick interrupt handlers, and a custom heap allocator with block coalescing that reduced memory fragmentation by 40%+