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
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

Connected and Autonomous Vehicle Developer | *C++, Python, OpenCV* — Nov 2024 – Jan 2025
UWaterloo Alternative Fuels Team(UWAFT) — *Waterloo, ON*

- Applied sensor fusion and object detection algorithms with V2X communication to improve autonomous vehicle safety and automation capabilities.
- Assisted in developing the camera-based driver attentiveness detection system using OpenCV and TensorFlow, enabling accurate monitoring of driver behavior and detection of inattentiveness.

QA Analyst 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
- Performed **API testing** on Merlin Mobile with **Postman** to verify internal system integration and data retrieval

PROJECTS

BehindTheTick | *Next.js, TypeScript, Tailwind CSS, Node.js, Recharts* — Jan 2025 – Present

- 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

FPGA Matrix-Vector Engine | *SystemVerilog, Vivado, FPGA* — July 2025

- Designed an 8-lane pipelined matrix-vector multiplication core featuring an 8×8 dot-product tree with DSP48 macros, dual-port BRAM, and a control FSM
- Achieved 346MHz timing closure (Top 10% in the cohort) on the target FPGA and verified functionality with comprehensive unit and top-level testbenches