

# Edward He

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## EDUCATION

### University Of Ottawa

Ottawa, ON, Canada

*Honour Bachelor of Science with Major in Computer Science and Minor in Mathematics*

*Sep. 2021 – Jun. 2025*

- Undertook comprehensive coursework: Algorithm Design, Software Engineering, Data Structures, Computer Architecture, Databases, User Interfaces, Discrete Structures, Statistics, and Calculus.
- Awarded \$3000 Admission Scholarship for academic excellence.
- Secured \$1000 First Year Merit Scholarship recognizing outstanding performance.

## EXPERIENCE

### Junior Software Developer - VBA Automation Script

June 2022 – August 2022

*Asiacom-Americas*

*Dulles, Virginia, U.S.A.*

- Conceived an automation script streamlining the consolidation of weekly employee reports into a singular bi-weekly report.
- Achieved an impressive script performance of  $O(n)$ , drastically diminishing the HR team's workload for pay report conversion.
- Employed a modular programming approach, segmenting the script into distinct functions, each addressing specific tasks.
- Enhanced code readability and maintenance, simplifying the adaptation process for developers.
- Amplified the HR team's operational efficiency twofold by eliminating manual report conversion.
- Achieved a 10% cost reduction in report conversion by eliminating the need of converting manually and paying for spreadsheet software, leading to significant time and resource savings for the company.

### Junior Software Developer - Laptop Application

July 2023 – September 2023

*Nanjing Unitech Electric Power Company*

*Remote Working*

- Spearheaded the creation of the "UnifiedMonitor" application to seamlessly fetch real-time solar panel data from manufacturers' websites.
- Utilized tools such as Selenium for web automation, Guava for utility functions, and Jsoup for HTML parsing.
- Integrated a sophisticated data-fetching algorithm with a complexity of  $O(n^2)$ , ensuring optimal data retrieval.
- Implemented a robust wait-and-check mechanism, ensuring the program captures the required web elements upon their availability.
- Designed a user-centric interface in template.html, offering a visually appealing SVG illustration to represent real-time data.
- Facilitated maintenance workers with an unified dashboard, eliminating the need to navigate multiple web pages for each device.
- The application aids in side-by-side device comparisons, ensuring quick anomaly detection, which empowered workers with instant insights into power consumption metrics of individual devices.

## PROJECTS

### Course Booking App | *Java, SQL, AndroidStudio*

September 2022 – December 2022

- Developed a dynamic Android application using Android Studio, leveraging Java for the back-end logic and XML for a responsive front-end design.
- Integrated a robust SQL database, effectively storing and managing both student and admin account data, ensuring data integrity and security.
- Engineered adaptive layouts offering intuitive user experiences tailored to distinct user roles, each with specific permissions and functional capabilities, optimizing usability.
- Ensured the application's reliability and performance by incorporating comprehensive JUnit testing, mitigating potential issues and ensuring consistent functionality.

### Hotel Database Management Simulation System | *Java, html, jsp, PogreSQL, IntelliJ*

January 2023 – May 2023

- Orchestrated an advanced hotel management solution, offering an effortless administrative experience and top-tier user interactions.
- Architected a resilient PostgreSQL database system, expertly integrating advanced features such as triggers, hierarchical structures, and table associations to ensure seamless automation and uphold data integrity across interconnected tables.
- Leveraged Java to build comprehensive backend utilities, complementing them with responsive UI elements developed using HTML and JSP to facilitate real-time interactions and operational functionalities.

### Stopwatch App | *React, JavaScript, CSS*

January 2024

- Designed and implemented a React-based stopwatch application, demonstrating proficiency in modern web development and UI/UX design.
- Employed state management and effect hooks in React to create a responsive and efficient user interface, showcasing technical expertise.
- Developed comprehensive test suites using React Testing Library and Jest to ensure application reliability and robustness.
- Focused on creating an intuitive and user-friendly interface, emphasizing the importance of a seamless user experience.
- Deployed at [My Stopwatch App](#)

## TECHNICAL SKILLS

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**Languages:** Java, Python, C/C++, SQL (Postgres, MySQL), JavaScript, HTML/CSS

**Frameworks:** JUnit, Python Unit Test

**Developer Tools:** Microsoft Azure, Android Studio, jpackage, maven

**Libraries:** pandas, NumPy, tkinter

## CERTIFICATES

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Microsoft Azure AZ-900