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.

TECHNICAL SKILLS

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

Microsoft Azure AZ-900