William Hu

Toronto, ON | +1-647-300-5099 | william.hu307@gmail.com | [LinkedIn](#) | [GitHub](#) | [Portfolio](#)

FULL STACK DEVELOPER & REGISTERED NURSE

As a registered nurse and full-stack software engineer, I blend healthcare expertise with proficiency in software development. I bring compassion, analytical strength, and a dedication to creating impactful digital solutions. With a deep understanding of healthcare systems and a human-centered approach, I craft user-centric software solutions. I'm committed to revolutionizing healthcare technology for a healthier and more accessible future.

TECHNICAL & INTERPERSONAL SKILLS

Languages: Python, JavaScript ES6, C#, HTML / HTML5, CSS / CSS3, SASS, SQL, JSON, Typescript, EJS, DTL
Libraries and frameworks: React, Express.js, Node / Node.js, Django, Jquery, Bootstrap, Tailwind, Semantic UI, Bulma, Passport, OAuth, Mongoose, .NET, AWS
Databases and other: PostgreSQL, MySQL, MongoDB, RESTful Routing, JSON API, OpenAI, AI
Tools: Git, GitHub, SQL, npm, Docker, Epic, EMR, OLIS, Connecting Ontario, PowerChart, ICON, Jira, Confluence
Soft skills: Active listening, positive attitude, empathy, leadership, collaboration, team building, communication, accountability, mentorship, compassion, critical thinking, triaging, prioritization, clinical judgment, documentation
Languages Spoken: English, Cantonese, French

EXPERIENCE

Freelance Full Stack Developer, Med Primers LLC   *Boston, MA (Remote), 10/2023 - Present*
- Leading the development of medical education applications as a full stack developer, utilizing MongoDB, Express, React, and Node.js
- Collaborating with interdisciplinary teams, incorporating healthcare expertise to create and implement innovative and scalable solutions
- Contributing to the product management lifecycle through code reviews, agile methodologies, and continuous learning
- Developing interactive and responsive front-end interfaces using React, addressing medical education challenges in a fast-paced startup environment

Public Health Nurse - Team Lead, Toronto Public Health   *Toronto, ON, 02/2021 - 07/2023*
COVID-19 Hotline, Sexual Health, School Immunization Program
- Provided daily support and guidance as a shift lead to a team of 14 healthcare professionals through consultations and 1 on 1 check ins
- Proactively identified and addressed service gaps, guideline discrepancies, and implemented strategic solutions for continuous improvement
- Contributed to the orientation and training process for new team members, ensuring seamless integration by articulating processes, setting expectations, and conducting hands-on simulations and buddy shifts
- Preemptively identified emerging call trends, enabling strategic preparation for upcoming topics and ensuring the team's readiness to address evolving public health concerns.
- Stayed up to date with COVID-19 guidelines, processes, and recommendations on municipal, provincial, and federal levels and provides daily update reports to team
- Provided support to various outbreak settings such as schools, workplaces, and long term care homes through outbreak management and planning processes

Registered Nurse, Toronto General Hospital   *Toronto, ON, 08/2020 - 02/2021*
Nursing Resource Team
- Applied the nursing process in various inpatient care areas in response to short-term absences and changes in acuity or patient volume
- Continued development of diverse clinical knowledge base by accepting responsibility for care of clients in care areas such as general internal medicine, cardiology, vascular and cardiovascular surgery, neurology, spinal surgery, respirology, thoracic surgery, nephrology, multi-organ transplant, emergency department, and COVID-19
- Performed in an independent, client-centered, and self-regulated capacity adherent to CNO standards of nursing practice through autonomous engagement in to nursing process, collaboration with members of the interprofessional team, in addition to accountability-driven practice

TECHNICAL PROJECTS

10 Questions - [GitHub](#) | [App](#) - MongoDB | Express | React | Node.js   *12/2023*
Daily diagnosis game that leverages OpenAI to challenge clinicians to think holistically to diagnose patients
- Worked collaboratively to spearhead the development of a daily diagnosis game using OpenAI, challenging clinicians with critical thinking and interviewing skills.
- Engineered an interactive training platform, collaborating on UX/UI design to ensure WCAG compliance for an inclusive user experience.
- Conducted thorough unit testing and implemented Storybook for component-driven development, ensuring responsive and scalable design.
- Shipped a web application successfully, demonstrating problem-solving skills and innovative solutions throughout the software development lifecycle.

Hyponatremia Simulation - [GitHub](#) | [App](#) - MongoDB | Express | React | Node.js   *10/2023*
Virtual patient simulator developed to train physicians and advanced practice providers on caring for patients with hyponatremia
- Collaborated with a cross-functional team to develop a virtual patient simulator, integrating OpenAI for diverse patient responses and problem-solving scenarios.
- Presented the application at Massachusetts General Hospital at Harvard University Grand Rounds, emphasizing its innovative solutions and potential impact on clinical trials.
- Coauthor of abstract accepted for application to be presented at the National Kidney Foundation in May of 2024.
- Leveraged object-oriented programming principles and Jest for comprehensive testing, ensuring robust performance.

Renal Consults - [GitHub](#) | [App](#) - MongoDB | Express | React | Node.js   *08/2023*
A tool for nephrologists to automatically generate consult notes for patients based on objective data that is passed in through a simple form
- Worked closely with nephrology experts to create a tool automating consult notes, employing an agile approach for efficient development and problem-solving.
- Collaborated on the design and deployment of a backend system, ensuring best practices in cloud infrastructure for a scalable and responsive application.
- Documented code extensively, facilitating continuous learning and cross-functional collaboration for B2C and B2B distribution channels.

Wavelength: Electronic Medical Records - [GitHub](#) | [App](#) - MongoDB | Express | Nodejs   *08/2023*
Fully functional electronic medical record that integrates OpenAI to automatically generate discharge summaries by parsing through the patient's existing progress notes.
- Designed and implemented a fully functional electronic medical record system, incorporating UX/UI best practices and responsive design for a consumer-centric approach.
- Integrated OpenAI for automatic discharge summaries, showcasing innovative solutions to streamline backend processes.
- Embraced an entrepreneurial mindset in a fast-growing startup environment, ensuring continuous improvement and adherence to best practices in cloud infrastructure.

LICENSE

Registered Nurse–General Class (College of Nurses of Ontario)   *Current*

EDUCATION

General Assembly   *Remote, Completed: 10/2023*
Software Engineering Immersive
Full-stack software engineering 420+ hour program focused on product development fundamentals, object-oriented programming, MVC frameworks, data modeling, and team collaboration strategies.

University of Western Ontario   *London, ON, Graduated: 04/2019*
Bachelor of Science in Nursing (BScN)
Graduated with Distinction and on Dean's Honour List.