NAM NGUYEN

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Technical Skills

Programming Languages: Java, HTML, CSS, JavaScript, TypeScript, Python, SQL, C, C++
Libraries/Frameworks & Databases: React.js, Node.js, Express.js, Spring, PostgreSQL, MongoDB
Developer Tools: Visual Studio Code, Xcode, Figma, IntelliJ, GitHub, Docker

Personal Projects

Roaming App | *React Native, Expo, Firebase, Express.js, Cloudinary, MapLibre* February 2025 - Present

- Developed a full-stack mobile app with Express.js backend APIs, Firestore real-time database, and a responsive React Native frontend, reaching 95% feature completion within 8 weeks and supporting secure user authentication with Firebase.
- Integrated Cloudinary for optimized image hosting by adjusting upload ratio and quality settings, improving rendering speed and reducing cloud storage usage.
- Structured post data and implemented MapLibre to display users' geotagged posts on interactive maps, enhancing journey visualization and motivating users to explore more.

Hotelytics | *Python, GeoPandas, Streamlit, OSMnx, Folium, Networkx, scikit-learn* April 2025

- Developed a hotel scoring algorithm using weighted amenity counts within a 350m buffer, ranking 80+ Vancouver hotels with GeoPandas and cleaned OpenStreetMap data for real-time personalized recommendations.
- Engineered an interactive Streamlit app integrating Folium and OSMnx, reducing user trip planning time through dynamic map layers, amenity-based UI filters, and optimized walkable tour routes.
- Implemented DBSCAN clustering to visualize 17,000+ amenities as convex hulls, revealing spatial activity zones and enhancing hotel decision-making.
- Designed and compared Travelling Salesman Problem (TSP) and Greedy Nearest Neighbor (GNN) routing algorithms on pedestrian networks from OSMnx, improving tour efficiency by ~15% with TSP solutions.

Sort Visualizer | *TypeScript, React.js, CSS* January 2025

- Built an interactive web application to visualize comparison-based and non-comparison-based sorting algorithms, encouraging algorithm exploration and simplifying complex concepts.
- Integrated audio feedback and a Dune-inspired theme to enhance user interaction and create an engaging experience.
- Implemented algorithms using TypeScript for stricter type checking, improving code reliability and reducing potential bugs during development.

Realtor Web Application | *HTML, CSS, JavaScript, Java, Spring, PostgreSQL, Docker* January - April 2024

- Built a monolithic web application with Spring Boot and PostgreSQL to enhance a realtor's online presence and client connectivity.
- Increased client satisfaction by 95% through UX/UI improvements informed by research on real estate industry design trends.
- Integrated Google Maps API for property visualization and Mailgun API for automated email alerts, boosting user engagement by 15–25% and improving conversion rates.

Non-Technical Experience

Cashiers and Customer Service | *Canadian Tire Grandview* November 2021 - April 2024

- Collaborated effectively with team members and acted as an intermediary between customers and manufacturers.
- Resolved both routine and unexpected problems by understanding and adhering to company policies, ensuring customer satisfaction and clear communication.
- Maintained a positive attitude and high-quality service under pressure during busy periods.

Education

Simon Fraser University | *Burnaby, BC* January 2023 - Present
B.sc. Computing Science

- Dean's List: Fall 2024 and Spring 2025