

# XU HUI “TOM” JING

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## SKILLS

- **Languages:** JavaScript (React, Node), Python, PHP, C#, C++, SQL
- **Frontend:** React.js, Tailwind CSS, HTML/CSS, Three.js, Framer Motion, Bootstrap, Figma (UI/UX)
- **Backend:** Node.js, PHP, MySQL, REST APIs, AJAX, Vite, Linux deployment
- **AI & Vision:** YOLOv8, Roboflow (custom training), OpenCV, OpenAI API (GPT-4, DALL·E)
- **GIS & Data:** QGIS, ArcGIS, GeoJSON, Python automation, environmental & spatial analysis
- **Tooling:** Docker, GitHub Actions, Git, npm, PostCSS, SSH workflows
- **Hardware:** Arduino (C++), servo/LED control, live sensor integration, 3D modeling (Blender, Fusion 360)

## EXPERIENCE

### Full-Stack Developer

May 2024 - Present

*BridgingRoots - INSPIRE | STEM for Social Impact*

*Victoria, B.C*

- Co-designed and developed a React-based web application for the remote Arctic community of Tuktoyaktuk to support Inuvialuktun language revitalization through free educational content.
- Integrated OpenAI GPT and DALL·E to enable dynamic, culturally relevant content generation.
- Containerized backend with Docker and deployed via custom GitHub Actions CI/CD to UVic servers.
- Collaborated with local educators to define requirements and delivered a culturally sensitive, user-friendly interface.
- Captured and processed 3D LiDAR and drone scans; created interactive Blender models embedded in the web interface.
- Achieved 80% classroom adoption within 3 months by working directly with teachers.

### GIS Analyst & Front-End Developer

Sept 2023 - Apr 2024

*Department of Fisheries and Oceans - Government of Canada*

*Victoria, B.C*

- Led frontend development and GIS data analysis for a PHP/JavaScript web application supporting Indigenous communities.
- Transformed government repositories into interactive map layers and authored supporting data content.
- Optimized complex SQL queries in MySQL to support nested data structures and improve retrieval performance.
- Automated GeoJSON compilation using Python, reducing data preparation time from weeks to hours.
- Conducted manual and automated testing to ensure stable production releases.
- Collected UI/UX feedback and iteratively improved interfaces using Figma and React.

### Computer Help Desk Analyst

Sept 2022 - Dec 2023

*University Systems - University of Victoria*

*Victoria, B.C*

- Provided tier-1 IT support across UVic for hardware, software, and multi-factor authentication (DUO).
- Resolved user issues through in-person, phone, and ticketed systems; escalated complex cases as needed.
- Maintained ~80% first-contact resolution rate, minimizing downtime and support load.
- Liaised with IT security, administration, and faculty teams to ensure reliable campus-wide operations.

## PROJECTS

### Personal Portfolio Website

*Built a dynamic, interactive personal website using React, Three.js, and TailwindCSS to showcase projects and interests.*

- Designed scroll-snap panels with live animated 3D model rendering using GLB files and React Three Fiber.
- Implemented real-time animations and component transitions via Framer Motion, with theme toggles and custom GLSL backgrounds.

### RainShroom: Data Physicalization of Foraging Weather

*Built a physical device to visualize weather patterns for mushroom foraging in Victoria using Arduino, C#, and custom 3D-printed enclosures.*

- Pulled live weather data via internet-connected Arduino and parsed eligibility conditions (temperature, rainfall) for chanterelle growth.
- Developed logic in Arduino C++ and a C# desktop interface to translate meteorological data into LED and servo feedback systems.
- Designed and printed a functional enclosure and mechanical indicator system for educational and mycology club use.

## EDUCATION

**University of Victoria**

*B.Sc., Engineering - Computer Science*

**June 2025**