Garrett Holmes

Toronto, ON

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Summary

I'm a Post-secondary school graduate with strong experience in computer science, software development, GIS, and spatial analysis, looking to for opportunities to expand my skillset and explore interesting ideas and projects.

Education

University of Guelph   *Guelph, ON*

Honours Bachelor of Computing, Major in Computer Science, Minor in Geographic Information Systems
and Environmental Analysis   *Sept 2019 - Dec 2023*

- Graduated with Distinction.
- **Courses:** Software Engineering, Software Development, Computational Intelligence, Computer Graphics, Cloud Computing, Parallel Programming, Network Programming, Systems Programming, Compilers, Remote Sensing, Applied Geomatics

Work Experience

Hardest Working Realty Team   *Toronto, ON*

Technical Manager   *2024 -*

- Responsible for maintaining team website, adding and editing listings, creating new sections and UI elements.
- Performed migration of all static pages to pages using dynamically stored listing data using a CMS.
- Consulting on all forms of technical questions relating to domains, email, cloud storage, personal devices, etc.

University of Guelph   *Guelph, ON*

Undergraduate Research Assistant   *2022*

- Worked under Dr. Stacey Scott to review and summarize academic publications relating precision agriculture and computer vision.
- Self-directed research of contemporary neural network concepts and methods.
- Exploration of Mask-RCNN, YOLO, detectron2 API networks.
- Used PyTorch and OpenCV to train a residual neural network to classify cattle in frames of video to support concurrent agriculture research.

Kandalore Outdoor Education Centre   *Kawartha Highlands, ON*

Outdoor Educator   *2023*

- Lead school groups grades 6 to 11 in educational and team-building activities as a group leader.
- Interacted with teachers to ensure quality leadership for their students during their time at Kandalore.
- Facilitated technical activities including indoor and outdoor rock climbing, high ropes course, map orienteering, etc.
- Worked with dedicated staff team to maintain a functioning site including a variety of manual labour and maintenance tasks.

Projects

Program Planner Website

Full-stack serviced webpage delivering detailed information about prerequisites, course searching,
program informaition using web-scraped university data, built on React.   *2022*

- Used AGILE methodology in a team setting to ensure effective software development as a team leader across multiple sprints
- Built user-friendly front end application using React, React Flow and other libraries, Bootstrap, and Javascript.
- Organized weekly requirements, scheduled team meetings, lead code review sessions
- Used Flask, NGINX, Python for backend development on a Linux server.

Moose Habitat Suitability Modelling in Northern Ontario

Evaluation and analysis of Moose Habitat sustainability in the Missinaibi Forest   *2023*

- Collaborated with students and graduate to identify areas of concern, research plan.
- Performed a detailed literature review of moose habitat suitability and environmental concerns related to indstrial logging, including government policy and forestry guidelines.
- Investigated and prepared vector data provided through government resources and forestry for analysis.
- Derived raster layers and relevant information and developed a Habitat suitability model using ArcGIS pro.

Skills

Programming Languages	C, Python, Java, HTML, CSS, Javascript
Software Environments	Linux/UNIX, React, NodeJS, AWS, LaTeX
Artificial Intelligence	AI Models, PyTorch, numpy, RCNN
GIS Tools	ESRI, ArcGIS, QGIS, WhiteboxTools, arcpy
Office Tools	Microsoft Office, Excel, Adobe Suite
Creative Skills	Photography, Videography, 2D animations, Video Production, Video Editing

References available upon request.