

James Nitsch

Waterloo, Ontario

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Relevant Skills

- French (Fluent), German (Beginner), Spanish (Beginner)
- Git, Make, GDB, Valgrind
- Docker Framework
- Python, C, C++, Bash, Racket, SQL
- JavaScript, TypeScript
- Excel (Pivot tables, vLookups, etc.)
- Windows, MacOS, Linux
- Matplotlib, NumPy
- HTTP Requests

Experience

German Aerospace Center (DLR)

[Stuttgart, Germany](#)

SOFTWARE ENGINEERING INTERN

Jan. 2024 - Apr. 2024

- Developed and maintained a Python web tool to provide researchers with efficient HVAC system design calculations for railway vehicles
- Created a captivating Hannover Messe 2024 demonstration showcasing the future of electric vehicle charging with mobile, hydrogen fuel powered units
- Facilitated communication between trains operating near Berlin and DLR, enabling the comprehensive logging of critical operational data essential for the successful integration of hydrogen trains in Germany
- Contributed to hydrogen fuel cell research and development through assembly and disassembly of testbenches in a laboratory environment
- Designed a solution for dynamic visualization of MATLAB energy data using Sankey Diagrams

Toronto District School Board (TDSB)

[Toronto, Ontario](#)

SECURITY RISK AND AUDIT ADMINISTRATOR

May. 2023 - Sept. 2023

- Conducted Cyber Risk Assessments to evaluate the security and privacy risks of online services
- Improved TDSB processes by performing testing of a new ServiceNow GRC implementation
- Communicated with board members and clients in a friendly and cooperative manner to resolve issues
- Leveraged pivot tables and other Microsoft Excel tools to create useful visualizations of Cyber Risk Assessment data
- Ensured compliance with security frameworks (NIST, ISO 27001, etc.)
- Administered Cyber Risk Reassessments to evaluate the implementation of Security and Privacy recommendations

Ed's House Hospice - Community Care Northumberland

[Cobourg, Ontario](#)

MAINTENANCE TECHNICIAN

Jun. 2021 - Sept. 2022

- Responsible for upkeep of 2 acre property
- Collaborated with volunteers to maintain gardens, mowed and weedwhipped grass and kept parking lot tidy for visitors
- Kept outdoor spaces in good condition for residents and guests

Projects

RAIINet Game

LANGUAGE: C++

Nov. 2023 - Dec. 2023

- A two player game very similar to Stratego
- Built with sound Object-Oriented Programming practices
- Support for text-based terminal gameplay or graphical gameplay

Honours and Awards

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|------|---|-----------------------------------|
| 2024 | Recipient , Douglas T. Wright International Co-op Award | Waterloo, Ontario |
| 2024 | Recipient , University of Waterloo President's International Experience Award | Waterloo, Ontario |
| 2022 | Recipient , University of Waterloo President's Scholarship of Distinction | Waterloo, Ontario |
| 2022 | Recipient , Pochon Award (Presented to the student with the highest academic standing in French) | Cobourg, Ontario |
| 2022 | Recipient , W. Ross Pinkerton Memorial Scholarship (For academic achievement) | Cobourg, Ontario |

Education

University of Waterloo

[Waterloo, Ontario](#)

CANDIDATE FOR BACHELOR'S OF COMPUTER SCIENCE

Sept. 2022 - Apr. 2027

- Cumulative GPA: 88%
- Computer Science Representative for Math Endowment Funding Council