#### YORDANOS KEFLINKIEL

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#### **TECHNICAL SKILL**

Programming languages: HTML/CSS, Java/Javascript, Python, C/C++, PHP, SQL, Shell/C-Shell, Perl, Bash, Node.js

Developer tools: PHPMyAdmin, MySQL, PostgreSQL, Visual Studio and VS Code, IntelliJ, CLion, PyCharms

Applications: Solidworks, Blender, MultiSim, Xilinx XPower, Ubuntu

## **EDUCATION**

BEng(Hons) Software Engineering - Ontario Tech University

Sept 2022 - Jun 2026

- Current GPA: 3.42

Ontario Secondary School Diploma (OSSD) - RH King Academy

Sept 2018 - June 2022

# MAJOR PROJECTS/ACTIVITIES

# 3D Rendering Engine for Simulation

September 2024 - Current

- Developing a 3D rendering engine capable of visualizing systems via C++, DirectX 11
- Implemented mathematical models to simulate orientation with the hope of being able to implement lighting, shadows, and reflections for realistic visual outputs
- designing the system to handle real-time rendering and computationally intensive tasks, optimizing performance through efficient memory management and data structures.

## **Linux System Backup and Monitoring Script**

November 2024

- Developed a comprehensive Bash script to automate backup processes, ensuring data integrity through real-time file monitoring and timely email notifications to the user.
- Utilized inotifywait to monitor file events such as creation, modification, and deletion in a designated directory. Each event triggered an automatic email alert using the Gmail SMTP server, ensuring users are kept informed about important file changes.
- Implemented full system backups with compression using tar, stored in a dedicated backup directory. Backup scheduling was automated through cron jobs, allowing daily backups at a specified time without manual intervention.
- Designed an efficient backup retention system where older backups (30+ days) are automatically
  deleted to manage storage space. This functionality included thorough logging of backup creation,
  monitoring events, and cleanup operations.

# **Insurance Database System**

**November 2024-Current** 

- Developed a Node.js-based insurance management system, with a backend connected to a MySQL database to handle user data, policies, claims, and payments.
- Implemented secure authentication with bcrypt for password hashing, along with session management for user login and security.
- Built RESTful APIs using Express.js to facilitate user registration, login, profile management, and CRUD operations on insurance policies, claims, and payments.
- Designed a dynamic dashboard interface using HTML/CSS/JavaScript, allowing users to view and manage their policies, claims, and payments, including pending payments and payment history
- Integrated payment handling features, allowing users to pay for policies directly via the system, with real-time updates on their payment statuses(app)(payments).

- Developed a password recovery system with security question verification and password reset functionality
- Designed a structured relational database schema for managing insurance data and user policies,
   ensuring efficient data retrieval through optimized SQL queries
- Ensured secure data storage, including encrypted user passwords and controlled access to sensitive information such as policy and payment details

#### Ontario Tech Robotics Team Software/programming Team

October 2024 - April 2025

- Collaborated with a multidisciplinary team to design, develop, and implement software and mechanical solutions for robotics projects.
- Contributed to the design and testing of robotic systems, improving team performance in competitions.
- Assisted in programming control algorithms and integrating software with hardware components.
- Participated in regular team meetings, brainstorming sessions, and technical discussions to advance project development.

# Ontario Tech Rocket Team - Propulsion Department Systems Member

October 2024 - April 2025

- Contributing to the design, research, and optimization of rocket propulsion systems, focusing on fuel efficiency and thrust performance for high-altitude rockets.
- Participating in technical discussions and documentation of system requirements, aligning with industry standards for aerospace engineering.

# **WORK EXPERIENCE**

## Engagement Program Assistant - Ontario Tech University, Oshawa ON

Sept 2024 - April 2025

- Provide support for student engagement and equity initiatives, including planning and facilitating events and tracking student-leader participation
- Co-facilitate training sessions and manage student volunteer databases for the Ambassador Program
- Organize and lead workshops and events on topics like anti-racism and equity as part of the RISE
   Program
- Participate in Peer Leader Program activities, including training, mentoring, and community event planning
- Assist in the development and execution of Transition Programs, offering guidance on orientation and program design
- Perform various office-based tasks, including administrative support and research, to enhance ongoing university initiatives

## University Tour Guide - Ontario Tech University, Oshawa ON

Sept 2022 - April 2024

- Provide tours to individuals in groups of 3-5 to provide personalized tours that highlight the university's unique features and benefits highlighting strong communication skills.
- Monitor daily email inquiries and updated booking information regarding individual tour dates
- Display extensive knowledge and expertise related to the university's programs and offerings to effectively answer questions and provide insight into program details and other important information
- Utilize personal experiences and feedback from current students to provide general insight into student life, contributing to a positive and informative tour experience for participants
- Participate in large-scale open house events for potential first-year students