

Anastasiya Volgina

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TECHNICAL SKILLS

Languages: Java, Python, C/C++

Frameworks: Swing/AWT, Tkinter, Pygame

Software Tools: PyCharm, IntelliJ, Arduino IDE, GitHub, KiCad

Lab Equipment: Oscilloscope, Soldering Station, Power Supply, Multimeter

PROJECTS

Personal Website | *HTML/CSS, Javascript*

Jul 2024

- Write here...

PCB LED Music Equalizer | *KiCad, Arduino, C/C++*

May/Jun 2024

- Designed a custom schematic symbol and PCB footprint for a RGB LED matrix display
- Ensured optimal component placement and signal routing to optimize the manufacturing cost
- Soldering...
- Applied interrupt-driven logic to synchronize RGB LED animations with real-time audio dynamics inputs

Byte Buddy | *Python, Tkinter*

Apr 2024

- Deployed a fully-interactive virtual desktop pet application, utilizing Python's Tkinter
- Implemented responsive mouse event handling to enable intuitive user interactions with GUI elements
- Won the Best Beginner award at YRHacks amongst 69 teams (actually 22)

Jagame | *Java, Swing/AWT*

Jan 2024

- Designed and implemented a Java graphics library for beginner game developers
- Abstracted complex OOP concepts with encapsulating wrappers, enabling for seamless graphic manipulation
- Employed Queues for precise multi-thread data synchronization, increasing overall accuracy and efficiency

Poké-Pop | *Java, Swing/AWT, GitHub*

Jun 2023

- Constructed a 2D turn-based Pokémon fighting game, leveraging Java Swing and AWT GUI components
- Utilized polymorphism to streamline the level generation process, allowing for modular creation of game levels
- Implemented a pixel detection robot to enhance game's ball aiming mechanism

Heaven and Hell | *Python, Pygame, GitHub*

May/Jun 2022

- Developed a 15 level, 2D platformer game, utilizing the Pygame graphics library
- Executed extensive debugging and optimization procedures, resulting in a well-balanced gameplay experience
- Administered user-testing to enhance game functionality and overall user experience

EXPERIENCE

Lifeguard / Swim Instructor

Apr 2023 – Aug 2024

City of Richmond Hill

Richmond Hill, ON

- Vigilantly ensured the safety of swimmers by enforcing pool policies and regulations
- Created swimming lesson plans tailored to a wide range of ages (3 to 17 years old) and skill levels
- Taught private classes (1-on-1) and group classes (up to 12 participants)

FIRST Robotics Team

Oct 2021 – Mar 2023

Lead Hardware Developer

Richmond Hill, ON

- Utilized Autodesk Inventor to design, refine, and enhance the layout of robotic systems
- Engineered advanced robotics mechanisms including a lateral-movement arm, precision pick-and-place arm, and freight sweeping system, employing motors, encoders, servos, gears and custom 3D printed components

EDUCATION

University of Waterloo

Sep 2024 – Apr 2029 (Expected)

Candidate for BAsC in Honours Computer Engineering (Co-op)

Waterloo, ON

- President's Scholarship of Distinction
- Relevant courses: Fundamentals of Programming, Digital Circuits and Systems, Linear Circuits