

Ethan Penney

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EDUCATION

University of Prince Edward Island

2024

Bachelor of Science, Major in Computer Science

Programming Based Coursework: Videogame Architecture, Advanced Graphics Programming, Software Engineering, Web Development, Mobile Device Android, Data Structures, Algorithms.

Theory Based Coursework: Videogame Design, Project Management, Programming Practices, Analysis/Design of Algorithms, Software Design/Architecture, A.I and Automated Reasoning, Machine Learning and Data Mining.

Related Coursework: Combinatorics, Multivariable Vector Calculus, Data Science.

PROFESSIONAL EXPERIENCE

Rogers Communications, Kentville NS

June 2024 - Present

Office Administrator

Managed financial transactions and addressed billing issues for customers across Nova Scotia. Oversaw accounts receivable, resolved customer inquiries, scheduled service appointments, and handled administrative tasks.

Hatch Coding, Remote

June 2021 – April 2024

Coding Instructor

Delivered online coding lessons to K-12 students in both group and individual sessions. Taught coding fundamentals, object-oriented programming, web development, GitHub version control, Unity, coding contest prep, and generative art.

Callister's Country Kitchen, Coldbrook NS

June 2019 – April 2021

Server

Provided excellent customer service by taking orders, delivering food and drinks, and assisting with light food preparation. Demonstrated problem-solving skills and maintained a positive attitude in a fast-paced environment. Started as a busser and was promoted to server.

PROJECTS & EXTRACURRICULAR

For a more comprehensive portfolio with detailed project examples, GitHub links, and demo videos, please visit my website, <https://eppenney.github.io>

Game Jams

Developed multiple Unity projects independently and during game jams, creating functional prototypes under tight deadlines. Demonstrated problem-solving skills using Unity 2D, 3D, C#, Blender, and game architecture concepts. Focused on continuous learning, with diverse projects showcased on itch.io.

OpenGL Particle System**January 2024 - April 2024**

Developed a dynamic particle system using OpenGL, implementing linked list memory management for efficient particle pooling. Designed a data-driven architecture, enabling expansion through XML without code changes. Created visual effects for smoke, fire, and fog using C++ and OpenGL, independently handling all particle, emitter, rendering, and shader code.

Robertson Library - eBook Perpetual Access Rights Tracker**October 2023 – April 2024**

Developed a desktop application with a six-member team to verify and track perpetual access rights for eBooks. Contributed multithreaded functionality and file upload/export features to improve performance. Integrated components from teammates to ensure a cohesive user experience and collaborated on a detailed technical document outlining project requirements, roadmaps, and planning.

Grocery Keeper Mobile Application**January 2023 – April 2023**

Developed an Android application with a team of three to track grocery lists and suggest sale locations based on price comparisons. Utilized Dart, Flutter, web scraping, and OOP principles, with a focus on building an efficient web-scraping tool to recommend relevant item prices to users.

SKILLS

Programming languages: C#, C++, Python, Dart, HTML, CSS, JavaScript, Java, Prolog, GLSL

Computer software/ frameworks: Unity 2D/3D, OpenGL, Flutter, Blender, Git, Unity Shader Programming, Vertex and Fragment Shaders, Microsoft Office

LINKS

<https://eppenney.github.io/>

<https://github.com/eppenney>

<https://way2rad2bsad.itch.io/>

<https://www.linkedin.com/in/ethan-penney-a5b845220/>