PAUL KOKHANOV

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EDUCATION

University of Waterloo — Waterloo, ON
Bachelor of Applied Science in Electrical Engineering - Cumulative GPA: 92.91% — *Sept. 2020 – Apr. 2025*
Relevant Courses: Co-operative and Adaptive Algorithms , Algorithms and Data Structures

TECHNICAL SKILLS

Programming Languages: C++, Java, JavaScript, C#, Python, TypeScript
Technologies: Unreal Engine 5, Unity, OpenGL, Git, Perforce, Jenkins

EXPERIENCE

Gameplay Engineer | *Tactic Studios* — May. 2025 – Present

- Developed gameplay tools and debugging systems within a proprietary engine for “Killer Inn,” enhancing iteration speed and supporting cross-discipline workflows
- Rewrote legacy Java gameplay code and restructured IO validation logic to improve reliability and cross-client state synchronization
- Solved various frame-dependent animation bugs by analyzing client updates, appropriate logging and debugging resulting in improving UI stability under rapid state changes

Software Engineering Intern | *PlayCo* — Jan. 2025 – May 2025

- Built interactive web-based UIs and gameplay tooling in TypeScript, collaborating across art and backend teams to support a live player population of 5M+
- Reworked gameplay systems using the Observer design pattern, enabling decoupled event handling and reducing code duplication by 10%, improving maintainability for future feature additions
- Led end-to-end development of the ”Treasure Express” feature, designing both UI interfaces and back-end logic segmenting users based on 7-day performance, resulting in post-rollout user participation rate of 83%

Software Developer Intern | *TextNow* — May. 2022 – Aug. 2022

- Integrated multiple key features for the TextNow Android App with over 10M+ daily users as part of the Platform Team
- Implemented and shipped Android’s ”Bubbles” conversation feature to enhance multitasking UX for over 10M+ users
- Investigated and provided solutions to various startup performance issues found using stack traces in order to improve application launch time by $\sim$ 250 ms

PROJECTS

3D Painter Tool - (github.com/PaulKokhanov1/OpenGLPainter)
Technologies: OpenGL

- Optimized per-vertex color updates and memory usage to simulate data-heavy workflows in RTS-style tools
- Created interaction system for selecting and painting geometry using mouse raycasts and dynamic VBO updates
- Applied raycasting with sphere culling and Möller–Trumbore for real-time selection and vertex color editing in C++

Fishing Simulator - (github.com/PaulKokhanov1/FarmingSimulator)
Technologies: Unreal Engine 5

- Engineered a genetic algorithm using C++ to simulate an evolving ecosystem, yielding 1,000,000 unique fish
- Created MVP architecture for UI components, separating game logic from display code, resulting in easy upkeep

Binding of Isaac Remake - (github.com/PaulKokhanov1/BindingofIssacRemake)
Technologies: GIMP, Unity

- Crafted a hierarchical FSM for enemy AI, creating 5 behavioral states that enable intelligent player interaction
- Built BFS-based dungeon generator enabling AI pathing and 100% procedural levels with boss and treasure rooms
- Optimized performance with Unity’s Profiler, reduced frame rate drops by 10% and cut memory usage by 15%

VR Multiplayer Escape Room - (github.com/georgia-alpajaro/Quest3_Escape_Room)
Technologies: Meta SDK, Photon Fusion 2

- Coded scalable multiplayer with Host/Client architecture using Photon Fusion 2, supporting 10 concurrent players
- Integrated behavior trees to govern NPCs in a networked environment with synchronized state transitions