

Nathan Douglas

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PROFILE

Computing Science graduate (BSc Hons, 2:1, University of Aberdeen) seeking a junior software engineering or game development role.

Experienced in full-stack web development and game development in Godot, with a dissertation project that was built and evaluated with real users.

Currently building multiple different systems for games in Godot 4, including chunk-based 3D terrain, pathfinding and other procedural systems.

TECHNICAL SKILLS

Languages: Python, GDScript, GLSL, TypeScript, JavaScript, SQL, C++

Frameworks: React, Next.js, Tailwind CSS

Game Dev Tools: Godot 4, GameMaker, Aseprite, Blender

Web & Dev Tools: Git, GitHub, VSCode, Supabase, Heroku

Areas: Game development, full-stack development, algorithms, data analysis and engineering, UI/UX Design, OOP, Composition

PROJECTS

Game-Based Learning for Algorithms | *Godot 4, GDScript, Python, JavaScript* 2025 – 2026

- Designed and built TaskTrain, an accessible browser-based educational game that teaches algorithm concepts through interactive Python tasks with visualisations of each step
- Without any external downloads, integrates a locally run Qwen model on the WebGPU through WebLLM and Python executed with Pyodide
- Automated collection of analytical player data with integration for a live leaderboard
- Evaluated the game with 16 participants; found game based learning to be greatly preferred whilst remaining effective
- Dissertation supervised by Dr. Rafael C. Cardoso, University of Aberdeen

3D Open World Survival Crafter | *Godot 4, GDScript, GLSL* 2026 – Present

- Chunk-based procedural terrain system with multithreaded generation as well as dynamic chunk loading and unloading
- Unique items and recipes, inventory systems with dynamic mouse functionality
- Inverse Kinematics for 3D animations and unique behaviour from NPCs ran by finite state machines
- Environmental features including a day-night-time system, clouds, biome based foliage

B1ts Fib - Brackey's Game Jam | *Godot 4, GDScript* 2026

- Developed a puzzle simulation game based around verifying packets of Bytes
- Different challenges across 3 Levels, plus an endless mode, random generation of packets
- Theme: Trust No One; Playable: [b1ts-fib](#)

Corrupted World - Do You WANNA Jam | *Godot 4, GDScript* 2026

- Developed a wave based horde survival game where the player's character constantly changes
- 4 enemies with unique pathfinding and behaviour from a finite state machine, Time based score systems
- Custom post processing, lighting and tilemap systems
- Completed as a 3 person team with another developer and a music composer
- Theme: Unstable; Playable: [corrupted-world](#)

Stock Tracker | *Next.js, React, TypeScript, Tailwind CSS, Supabase, Vercel* 2026–Present

- Building a full-stack stock tracking and dashboard web app with a Supabase backend and a Vercel frontend

- Customisable dashboard with live stock tickers & graphs, stock comparisons and investment options
- Histotrack** | *HTML, CSS, Python, JavaScript, SQLite, Heroku* 2024–2025
- Client project for the University of Aberdeen Medical Campus
 - A calendar-based equipment booking system integrated with a database and automations for invoice creation and project archiving
 - Developed database interactions from the UI, consistent front-end styling, navigation and mobile compatibility via automatic scaling
 - Completed as part of a 7 person team, using pair programming and agile development
- University of Aberdeen Hackathon** | *Python* 2026
- Developed an algorithm for a Texas hold'em bot that used pot odds and equity calculations to compete against other teams' bots
 - Participated with another teammate, 5th place
- Earlier Game Jams** | *Godot 4, GDScript, GLSL, Python, JavaScript* 2023–Present
- Built multiple games individually and in teams for university or online jams; playable at nat00n.itch.io
- Advanced Higher Computing Project** | *Python* 2021–2022
- Re-created minesweeper from scratch
 - Multiple difficulty options including a custom board size
 - Text based display and input controls

EXPERIENCE

- Duty Manager** Nov 2023 – Present
Third Smart Westhill, Hampton by Hilton Westhill Westhill, Aberdeenshire
- Run shifts under pressure, coordinating with the 15 person team and handling incidents and crisis situations
 - Maintain operational documentation and handovers
 - Trained and led team members; adapted generic training into more suitable and understandable scenarios
 - Named Employee of the Year in 2024 and 2025
- Shop Assistant** Sep 2022 – Nov 2023
Spar / BP Westhill, Aberdeenshire
- Customer service, stock management and equipment maintenance alongside full-time study
- Work Experience Placement** 2021
SLB Westhill, Aberdeenshire
- One-week placement setting up BIOS and verification keys on computers and visiting data centres and additionally learned how oil scanning software functions

EDUCATION

- University of Aberdeen** Aberdeen
BSc (Hons) Computing Science, 2:1 Sep 2022 – Jun 2026
- Dissertation: “Game-Based Learning For Algorithms: A Browser-Based Educational Tool”, Playable : [TaskTrain](#)
 - Modules and areas: Artificial Intelligence & Machine Learning, Security, Software Development & Engineering, Data Engineering, Robotics

ADDITIONAL

Awards: Employee of the Year 2024, Employee of the Year 2025
Interests: Mountain biking, snowboarding, bouldering, gym, cooking, gaming, game development