CURRICULUM VITAE

PERSONAL DETAILS

Surname	Nelson	**Telephone No.**	07565 979212
Forenames	Yannik (Daniel)	**Website**	yanniknelson.github.io
E-mail	yannikdanielnelson@pm.me		

ABOUT ME

I am a gameplay programmer with 3 years industry experience at Cloud Imperium Games, working on Squadron 42 and Star Citizen. I've also been: an intern with Rockstar in 2022 for 3 months working on GTA VI; a gameplay programmer with Yaldi Games developing a weather system in unreal; and a gameplay programmer for a community maintained version of the Disney MMO ToonTown: Online called ToonTown: Corporate Clash project.

At CIG I took ownership of an important legacy system which I supported through multiple core engine changes including persistence and server meshing as well as designed and implemented upgrades for this and other features/systems for both Squadron 42 (single player) and Start Citizen (MMO).

Outside of work I'm interested in computer archicteture, electronics, esoteric programming languages, Warhammer, boardgames, crochet and of course videogames. I also very much enjoy reading, mainly sci-fi/fantasy, my favourite series being the expanse.

LANGUAGES, TOOLS & OTHER EXPERIENCE

C++	I have extensive experience with C++ using it throughout my professional career as well as in my personal projects and academic career. In this time I have gained experience with the standard library, taking advantage of proprietary engine features and programming in threaded and asynchronous environments.
Perforce	I am very familiar with perforce from a workflow perspective, also having performed a couple integrations in my time at CIG.
Jira	At CIG I've used Jira for managing my sprints, making feature requests and planning feature work.
GitHub	I use Github to maintain my personal projects and used it to collaborate with other developers on ToonTown: Corporate Clash
XML	I have a lot of experience with XML and other markup languages from data driven projects as well as experience building websites (e.g. my personal website)
Python	Python is the first language I learnt and I am familiar with using it for quick prototyping, though I don't use it very frequently.
C# and .NET	I learnt C# and some .Net for an internship with ThorLabs where I wrote a system to port settings between versions of their software Kinesis.
Java & Haskell	I learnt Java and Haskell at university while learning object oriented and functional programming.

I also have passing experience with Regex, JavaScript, Php, SQL, Visual Basic, LaTeX.

My degree was in Aritificial intelligence and computer science and so I've become familiar with many related topics. I've studied agentic AI, AI with a focus on reasoning and planning including search based planning propositional and first order logic probabilistic reasoning etc. I've also taken courses in applied machine learning, learning about predictor algorithms and data sanitation. My dissertation was also related to AI, it was concerned with methods of integrating functions represented by neural networks using the weights of those networks, specifically applying this to estimating optical density through vdb volumes.

I also have experience with computer architecture, having taken OS and computer architecture and design courses at university as well as having built an 8-bit breadboard computer

Having worked with the Star Engine (CIG), the Rage Engine (Rockstar), the Unreal Engine (Yaldi Games) and Pada3D (ToonTown: Corporate Clash) I am very experienced with quickly picking up game engines and other proprietary tools used by the various teams I've worked with.

CURRENT EMPLOYMENT

October 2022 – Ongoing	Gameplay Programmer Cloud Imperium games	Maintained core gameplay features in both single and multiplayer environments. Supporting upcoming releases. Designed and implemented complex gameplay systems for engine upgrades such as entity streaming, persistence and sever meshing.

EMPLOYMENT HISTORY

June 2022	Gampleay/AI Intern Rockstar Games	General bug fixing and refactoring for GTA 6
July 2021	Software Developer/Scholarship Recipient ThorLabs	Developing core systems in their software with C# and .NET Debugging hardware communication protocols
June 2021	Game Developer Yaldi Games	Developed game system and features including a weather manager (and effects) in c++ for unreal engine
July 2019	Programmer Robotical Ltd, Edinburgh	Developing addons for Marty V2 (The second version of their robot) Programming, Communicating with Product Designer, Basic Circuit Design
June 2019	Computing summer camp coach Firetech	Teaching Python to children aged 10-18 years Designing teaching sessions to fixed learning criteria

HIGHER ACADEMIC QUALIFICATIONS

September 2018 – 2022   Artificial Intelligence and Computer Science (BSc Hons), awared a 1st University of Edinburgh

First Year: Intro to Computation, Object Oriented Programming, Data and Analysis, Cognitive Science, Intro to Linear Algebra, Calculus and its Applications, Proofs and Problem Solving)

Second Year: Reasoning and Agents, Intro to Software Engineering, Discrete Mathematics and Mathematical Reasoning, Intro to Algorithms and Data Structures, Intro to Computer Systems, Learning, Probability with Applications

Third Year: Intro to Vision and Robotics, Informatics Large Practical, Professional Issues, Introductory Applied Machine Learning, Computer Security, Operating Systems, Systems Design Project

Forth Year: Computer Graphics, Computer Architecture and Design, Compiling Techniques, Threaded Programming, Algorithmic Game Theory and its Applications, Performance Programming, Honours Project

OTHER QUALIFICATIONS

June 2018	Suicide Alertness For Everyone	LivingWorks NHS Scotland
June 2017	Level 1 Award in Coaching, Parkour/Freerunning (QCF)	1st4Sport, Parkour UK
October 2016	Emergency First Aid Workshop for Parkour and Freerunning	IMPACT First Aid Training
October 2016	Safeguarding and Protecting Children	Sports Coach UK

ADDITIONAL ROLES AND INTERESTS

I was voted in as the second-year representative for the Edinburgh University Computing Society (CompSoc), which involved being at meetings and ensuring the interests of second-year students were represented during votes and discussions.

I was the Game Development Special Interest Group of my university's computing society; this involved finding and reaching out to speakers and designing and running workshops for our members.

I was game developer for ToonTown: Corporate Clash, a community upheld version of the Disney MMO ToonTown: Online, an MMO written using Python and the Panda3D game engine.

I have been developing an interacive esoteric language interpreter EsoProg, currently supports the Piet programming language.

GITHUB PROJECTS & COMMUNITY PROJECTS

My Personal Website: https://github.com/yanniknelson/yanniknelson.github.io or to visit as a website https://yanniknelson.github.io

EsoProg: https://github.com/yanniknelson/EsoProg or to see my summary https://yanniknelson.github.io/Blogs/EsoProg.html

Haskell 3D Game Of Life: https://github.com/yanniknelson/CodingChallenge (A team-mate made the repository, this is forked)

LED Mask: https://github.com/yanniknelson/Mask-Code   8-Bit CPU: https://yanniknelson.github.io/Blogs/BreadBoardCPU.html

Toon-Town: Corporate Clash: https://github.com/CorporateClash, their website: https://corporateclash.net/

Yannik Nelson