# sean butler

technical and creative product owner, software engineer

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#### **WORK HISTORY**

# ubisoft, learnington spa - lead programmer

SEPT 2021 - NOW

owner of multiple core tech features including custom visual programming language and backend linear solver. direct and indirect reports across multiple teams of programmers. involved in shaping the processes and technology of the wider project. work with stakeholders across multiple sites and projects.

#### **uwe**, bristol – *senior lecturer*

SEPT 2016 - SEPT 2021

research projects & grant funding. game technology modules written & lead, etc.

# truckulus, birmingham - owner

MARCH 2015 - AUG 2016

angel funded startup. mobile fleet tracking and loads brokerage project for haulage industry. saas approach to backloads management for small hauliers. pitched for funding and to clients. hired staff, managed devs, etc.

# soshi games, birmingham - game director

FEB 2013 - MARCH 2015

reporting to the ceo & board. vc funded startup for music industry game concepts. rolled out creative direction of high level concepts from owner to multiple small teams. responsible to improve final quality and monetization of existing live games. stepped in to cover production duties in absence of producer.

# happy little aliens, birmingham - programmer

FEB 2011 - FEB 2013

self funded micro studio focussing on non-violent iOS games. designed and developed 2 iphone games. collaborated with distributed team via internet.

# behaviour interactive, montreal – lead programmer, game designer

JAN 2005 - FEB 2011

created designs in fast paced short duration projects and big budget titles. contributed to pitches winning over \$10M in funding across multiple platforms. earlier, lead team of programmers using c++ on the nintendo ds. scoped and scheduled coding. designed and implemented an entire range of in game agents and systems. interviewed new hires. consulted by senior management on all aspects of game development.

#### **SKILLS**

product ownership team leadership engineering management training & mentoring pastoral care written, verbal & visual comms scheduling & estimation certified scrum master

#### **TECHNOLOGIES**

c/c++, c#, VR, opengl, linux. python, js & variety of web tech. unity, unreal & in-house game engines. llvm, ir, v8, DSLs, compilers. video game console development. patterns, OOD, UML, etc. low level, embedded c on esp32, rp2040. gof ai, pcg, gpu shaders etc.

# johnson county community college, kansas city - consultant

NOV 2003 - JAN 2004

worked with faculty on associates degree curriculum. provided course content and materials for programming, design, and related modules. advised on choice of texts. participated in community outreach presentations.

# argonaut, london – lead gameplay programmer

SEPT 1997 - MAR 2003

led team of gameplay programmers. maintained and extended in house scripting language. interviewed, reviewed and guided junior programmers.

## simtex, farnham, uk - programmer

JAN 1997 - SEPT 1997

wrote physics routines for a futuristic xlr8 pc motorcycle race game. implemented an pc opengl world viewer allowing staff to check mesh, textures, lighting, etc.

# blitz games, leamington spa - programmer

SEPT 1996 - DEC 1996

programmed the sound library for use in wargames on the ps1. designed and implemented hierarchical polygon subdivision code for use in glover on the ps1.

# middlesex university, london - lecturer

SEPT 1996 - DEC 1996

created the uk's first undergraduate games development course using psx console hardware, predating sonys playstation first initiative by years. publicity generated reached national media. introduced self peer appraisal to promote reflection as an aide to learning. wrote, taught and examined multiple modules across the computing track, including using opengl and c++.

#### **PUBLISHED GAMES**

#### game

unannounced title console/pc queen: the game, mobile weld hero (totem), mobile arriva bus town, facebook clue the music, mobile dj of the dead, mobile music festivals, facebook meteor storm escape, iOS indigo bunny, iOS ghostbusters, nintendo 3ds disney brave, ps3, xbox, wii, ds wipeout 2, nds transformers 3, wii 3ds & ds rango, iOS naughty bear portable, iOS mysims sky heroes, nds my sims agents 2 (cancelled), nds twilight (cancelled), nds mysims racing, nds the mummy 3, nds indiana jones & the staff of kings, nds

#### role

lead programmer game director project manager game director game director game director game director programmer programmer pitch & original concept pitch & original concept game designer pitch & original concept game designer pitch & original concept script designer game designer game designer game designer game designer lead programmer

kim possible 6, nds monster house, nds suite life of zack & cody: tipton trouble, nds kim possible 4, nds scooby doo unmasked, nds malice, xbox & ps2 xlr8, pc & arcade wargames, psx glover, psx & n64 additional programming additional programmer lead programmer additional programming game programmer lead game programmer programmer programmer programmer

#### **AWARDS**

2010, finalist best handheld game, nominated best game design, canadian video game awards, my sims racing

2007, winner multimedia technical innovation, alliance numerique, suite life of zack & cody

#### PEER REVIEWED PUBLICATIONS

salge, c. et al. (2022) impressions of the gdmc ai settlement generation challenge in minecraft. foundations of digital games, athens, greece.

butler, s. & parkes, a. (1997) film sequence generation strategies for generic automatic intelligent video editing, special issue on entertainment and ai/alife of applied artificial intelligence (aai).

butler, s. & parkes, a. (1996) automatic film editing by filmic decomposition of nonfilmic queries. international conference on multimedia technology and management (icmtm), hong kong.

butler, s. & parkes, a. (1996) spacetime diagrams for film structure representation. signal processing: image communication, volume 8 issue 4.

parkes, a. p., nack, f., and butler, s. (1994) artificial intelligence techniques and film structure knowledge for the representation and manipulation of video. proceedings of riao 1994, intelligent multimedia information retrieval systems and management. vol. 2. rockefeller university, new york.

butler s., and parkes, a. p. (1994) intelligent strategies for the presentation of video in intelligent tutoring systems. educational multimedia and hypermedia annual. ed-media 94, vancouver.

#### **OTHER PUBLICATIONS**

butler, s. et al. (2021) exploring mapping functions and generative methods for procedural level generation from designer curves.

butler, s. (2020) clarification of video retrieval query results by the automated insertion of supporting shots.

butler, s. (2019) throwing things. seeds: proczine ed: jupiter hadley & dann sullivan.

# SCHOLARLY ACTIVITY, GRANTS, ETC

2020, gpt2 generated digital postcards and poems, co applicant, heritage wales & artstation, generated from artifacts discovered during tourist visits to flat holm.

2020, evolutionary game mechanic discovery, coevolution genetic programming game mechanic discovery, principal applicant / genetic programming over a c-like language within a realtime simulation which developed into an ensemble evolution study

2020, PROCJAM organiser, part of the team which set up and ran this well attended procedural content generation games jam

2020, Generative Minecraft Design Competition, judge / experience of minecraft and ai coupled with non participation qualified me as a judge for this international pgc/ai competition.

2019, reviewer, INTERACT 2019 Conference

2019, reviewer, ICGI Conference

2019, machine learning for video game level design, principal applicant / hybrid methods montecarlo tree search and neural network for level design using surrogate model and playing agent for gameplay evaluation.

2018, web and mobile 3d visualisation, heritage wales & art station / co applicant / web and mobile 3d visualisation using real world data and historical multimedia of heritage sites in south wales.

#### **EDUCATION**

# phd (incomplete), ai and cinema theory – *lancaster university*

developed a prototype ai system that uses a subset of filmic principles to automatically create a "correct" film sequence from a library of annotated mpeg files. basically a film editing expert system. queries can be expressed with a simple syntax, and contain no film editing information. developed novel user interface for digital video editing, based on model of video editors at work. taught motif/osf x-windows programming to undergraduates.

# **b.sc.** (hons), computer science – *lancaster university*

awarded an upper second. studied computer science, software engineering, human computer interaction. also psychology and maths. ran speleology society.

#### **PERSONAL**

family, travel, making things with wood and/or electronics, tech, the outdoors, video games.

full british driving license. references available on request. married to an american citizen, right to work in usa. no criminal record.