C E F N   H O I L E
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EMPLOYMENT

BBC
Senior Software Engineer   Aug-18-Ongoing

Full Stack Developer in Kanban-led Devops team for pan-BBC Navigation Experience and Search API. Continuous delivery of bbc.co.uk Nav bar and multi-platform Search for e.g. Sport, iPlayer, Sounds, News. Coding and testing in Typescript, Javascript, Java, Python, Ruby, Groovy. Testing with Jest, Cucumber, Selenium, Frontends React. Backends Linux, AWS services, Solr, EC2, Docker

Contractor
Self-employed Embedded Software Engineer   Apr-11-Aug-18

Bespoke rapid prototyping and integration of embedded electronics BBC R&D; prototyped 'Connected Fob' screenless device for tagging radio programs. BBC Knowledge&Learning; M.I.High 'communicator' pencil built, programmed in public workshops. Physical computing workshops, studio prototypes for BBC Microbit team. Litfest; 'Reading Lights' illuminated poetry in Lancaster Library, interactive website for Lancaster witch trials character-exploration. Photobot; Pi-based coin-triggered compositing and dye-sublimation printing networked photo booth. Adafruit; commissioned to establish Adafruit_Blinka driver conformance layer, now a 232-star open source project on github

@VGKits and @ShrimpingIt
Instigator and Maintainer   Apr-12-Aug-18

Company founder designing programmable electronics kits for UK education. Conceived and delivered projects documenting Arduino-compatible and ESP8266 electronics for UK educators with global impact, with a series of workshops run for commercial and community benefit.

Imagination@Lancaster University
Lead and Architect   Jun-15-Jan-17

Designed and deployed real-time digital facilitation tool for high-profile design workshops. System guided delegates on iPads through brainstorming process, auto-generating 'keynotes' for design workshops. Developed Utopiary MQTT synchronization system. Docker, Node, JQuery, MQTT, RethinkDB.

O'Reilly and Make Publishing
Author and Technical Writer   Jan-13-Jan-15

First author for 'Make: Raspberry Pi and AVR Projects'. Safari series technical writer Wrote book chapters teaching physical computing with the Pi using bluetooth and python, authored web series describing Arduino-compatible projects.

BT PLC R&D
Principal Researcher   Jun-00-Mar-11

Technology researcher, strategist, programmer and inventor. Conceived, prototyped, user-trialled BT Rules drag-and-drop programming tool for non-programmers. Visiting scientist at MIT. Conceived, deployed Hubbub - BT's first customer-facing web-based forum and 'Product Innovator's Guide' - Java+XML-based questionnaire tool. Maintainer of http://labs.bt.com. Prototypes, patents, published articles, projects and showcases from Hubbub, 'DIET Agents', SWAN distributed hashtable, 'EOS' and 'STAN' agents, (evolution and wireless propagation simulation tools), WAND pointing device, Shopping Garden self-organising ecommerce tool. BT board strategy documents; 'P2P bandwidth usage', '2020 vision' and 'Digital Footprints'. Network Security working group lead. Departmental employee care spokeperson. Performance management facilitator. BT Group Talent Pool and 'Key Networker' Award.

Enigmaker.org
Inventor   Feb-10-Apr-10

Experimental project releasing six public-domain inventions. Real-time product development via twitter, readers invited to guess a device's function. Archive at https://cefn.com/archive/enigmaker.org

Tinker.it
Inventor in Residence   Jun-09-Mar-10

Consultant maker to creators of the Arduino Co-facilitated innovation workshops. Lead developer for four eighties-inspired hacks in Nokia's PUSH N900 Maemo launch campaign. Facilitated beginners Arduino and commercial prototyping workshops for BBC, BT, EDF, Chapter Arts.

AMT Partnership
Telemarketeer and Technical Support Oct-99-Jun-00

Part time job in specialist telemarketing to support first Masters degree Specialist telemarketing, campaign management, client liaison for international banking systems, Network installation and data mining. Designed business processes and induction training package.

V&A Marketing Limited
Business Development Manager Jan-96-Aug-99

2nd full-time employee of fastest-growing company in Wales Ran sales, advertising of £500,000 construction order book. Specified and installed intranet, email, external website. Designed, implemented ISO9002, CDM and COSHH-compliance. Joined company as 2nd full-time employee, 3 yrs later had grown to 70 employees.

EDUCATION

MRes, Lancaster University
Design for the Digital Economy Sep-11-Jun-12

Massachusetts Institute of Technology
Visiting Scientist Secondment, CSAIL, Media Lab Feb-05-Jun-07

Santa Fe Institute, CEU, Budapest
Complex Systems Summer School Jun-03-Aug-03

University of Sussex (Computer Science)
MSc, Evolutionary and Adaptive Systems Sep-98-Jun-00

Nottingham University
BA First Class Honours, Philosophy Sep-92-Jun-95

Monmouth School
Four As at A-Level, 3 AOs, 9GCSEs Sep-90-Jun-92

SOCIETY

BHPA
Paragliding Pilot and Coach Jan-01-Ongoing

Keen paraglider pilot, coach and club volunteer in Lakes, Dales, Peaks. Qualified club coach and one-time tandem distance world-record holder (as passenger).

Morecambe Prom parkrun
Event Director Jun-18-Ongoing

Founder of weekly volunteer-marshalled 5km run. Established event, secured funding and equipment, coordinated launch and directed weekly parkrun on Morecambe's famous Promenade

Morecambe Mini Illuminations
Convener and curator Jun-16-Nov-19

Conceived and established annual celebration of miniature community-made programmable illuminations. Designed and ran workshops based on Micropython-programmable ESP8266 circuits to drive LED illuminations crafted with plywood, card and acrylic paint.

Curiosity Collective
Member of interactive arts collective Jan-05-Apr-12

Founder member of experimental cyberart group. Created interactive installations for five different shows touring Ipswich and throughout the UK, including the 'Human Kaleidoscope (video)', 'Semaphore to SMS' gateway (machine vision), 'Mime-driven handcar' (ultrasonics), 'Curiosity Killed the Cat' (microcontroller) 'Grass is always greener', (visual illusion) and many more.

Black Shoals Project
Artificial Life artwork Jan-00-Jan-04

Developer of artificial ecosystem, driven by real-time stock market data, shown at the Tate Gallery, covered by BBC news and selected in shortlist for Brian Sewell's Alternative Turner prize.