

Stu Kennedy

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Experienced Full-Stack Developer with a strong focus on AWS, Architecture and AI. Proven ability to integrate solutions utilising AWS products and Frontend frameworks to implement enterprise level architecture. Seeking remote contract roles in full-stack development, front-end, or AWS roles.

SKILLS AND EXPERIENCE

FullStack development: Typescript/ HTMX/ Node/ Go/ Svelte/ Flutter/ Remix/ NextJS/ Django

AI Development: Python / Tensorflow

Platforms (Cloudflare / AWS / Firebase / Supabase): dashboard management and CLIs.

Amazon AWS - S3, EC2, RDS, Lambda, MapReduce, Memcached, SES, Cloudfront etc.

Functional / FRP: proficient in functional and functional reactive programming to solve algorithmic problems in a declarative way.

Agile: trained by founder of Lean Agile Scotland and helped large businesses implement Agile principles by training and instruction.

Testing: Cypress, React-Testing, Mocha, Chai, Jasmine, Ava, Sinon, Cucumber, PhantomJS, CircleCI, Jenkins

Programming languages:

TYPESCRIPT / JAVASCRIPT / CLOJURE / HTML5 / CSS3 / TAILWIND

SQL RDBMS (POSTGRES / MYSQL)

PYTHON / PERL / BASH / PHP

JAVA / C / C++ / QT

Programming Software: VSCode / Zed / VIM

Operating Systems: Mac OSX / Linux (Ubuntu / Debian) / Microsoft Windows

Algorithmic skills:

Physics engines, Numerical methods

Particle solvers, fluid solvers, rigid body dynamics

DSP (FFT, DCT, JPEG, 3D JPEG)

Compression (JPEG, 3D JPEG, Fractals, 3D Fractals)

Cryptology (RSA, ElGamal, Diffie-Hellman, Eternity/Shuffle (own inventions))

Project Management:

Run own company (Continuata), providing digital product distribution for 30 world leading music sample library manufacturers.

Communication Skills:

Dealing with customers in sales and technical support

Communicating with non-technical managers about technical development. Public speaking and lecturing.

Creativity:

Musician/Composer/Producer: Orchestral arrangements for pop & rock artists (Paul Weller, Gaz Coombes/Supergrass, Holly Johnson, Myleene Klass etc.) Orchestral/electronic film scores for Hollywood movies, TV, Trailers and TV adverts.

Artist: Oil painting landscapes and portraits, realism. Portraits in graphite, charcoal and coloured pencil.

WORK EXPERIENCE

Mar 2010 - present Continuata Ltd - Founder/Managing Director/Developer

Provide world-leading service for large digital product distribution of composer and music producer sample libraries. AWS-based infrastructure, Qt client downloader, Javascript front-end web apps.

Jun 2024 - present Koios AI - VP Engineering

Full solution architecture and implementation to take 4 products to market for a startup in Acoustic AI. Full-stack Node (Typescript) HTMX platforms built on Cloudflare and Python AI services running on Google Compute.

Apr 2023 - Jun 2023 SEEMiS - Technical Lead Consultant

Let team to analyse and advise on SEEMiS public sector web-app delivery including AWS architectural review and Front-end prototype to showcase Scottish Government Design System.

Jan 2020 - Apr 2023 Insights - Senior FrontEnd Developer (became FullStack with Java)

Developed React-based psychological evaluation software used by companies such as Microsoft, Amazon, Uber etc.

Jan 2019 - Jan 2020 Virgin Money / Clydesdale Bank / Yorkshire Bank - Senior FrontEnd Developer

Developed React-based call-centre telephony system and Internet Banking system.

Jan 2018 - Jan 2019 Scottish Power - Lead Agile FrontEnd Developer

Led Agile development teams, established architecture and build-pipelines for ReactJS web-apps for iPad sales platform, desktop telesales and customer support software. Managed delivery and helped implement Agile practices.

Aug 2016 - Dec 2017 ROS (Scottish Government) - Senior FrontEnd Developer

Recommended and implemented front-end architecture for digital transformation of Scottish Land Registry search website. Using Redux, ES6, RxJS, RiotJS to implement scalable front-end web applications.

Jun 2016 - Aug 2016 TicTocFamily Ltd (for SFA) - Cloud Computing Consultant

Recommended and implemented data acquisition architecture on AWS for all football game live statistics

Jan 2016 - Jun 2016 Digirati Ltd (for IBM) - Senior FrontEnd Developer

Recommended and introduced ReactJS and redesigned architecture for multi-million pound nationwide NHS project, moving away from untenable hand-rolled JQuery solution by simplifying front-end dev processes.

May 2015 - Dec 2015 Overleaf Ltd - Senior FrontEnd Developer

Introduced React for widgets and components in real-time LaTeX online editor and compiler for scientific publishing.

Sep 2013 - May 2015 Capita Ltd - FrontEnd Developer

Developed and designed a Police Notebook and webAdmin application using EmberJS, JQuery, NodeJS. Agile(Kanban)

Nov 2012 - Jul 2013 Metaforic Ltd - Cloud Computing Consultant

Developed/ designed cloud-based mobile reporting web-application using NodeJS / Javascript FE / Amazon AWS.

Feb 2007 - Jul 2010 Strathclyde University - PhD Mathematics

Thesis in analytical and computational fluid dynamics and chaos theory.

JAVA/C++/MATLAB/Maple programming - graphical sim. of 3D flows.

Sep 2006 - Feb 2007

career break - working for a local church.

Sept 2004 - Sept 2006 Picsel Technologies Ltd - Senior Software Engineer

Developed an embedded 2D/3D animation engine for phone UIs and comic author application.

Cross-platform SVG player for mobile devices and cryptographic algorithm for software licence protection

May 2004 - Sept 2004 VRE Ltd - Managing Director and Developer

Founded start-up to develop a new 3D motion capture system using RF

Wrote and submitted patents, organised IP

May 2003 - May 2004 Visimetrics plc - Mathematician & Engineer

Cryptosystem design and coding. Embedded-Linux based security system programming

Oct. 2000 - May 2003 LookC Ltd. - Mathematician & Engineer

Design of bespoke hardware/firmware solution. Developed and wrote 4 patents (compression and cryptography)

June 2000 - Sept 2000 Rolls Royce - Lubrication Theory Engineering

Bearing Temperature prediction program in C++. Developed Fluid Dynamic equations for German DIN standards.

HIGHER EDUCATION

2007 - 2010 STRATHCLYDE UNIVERSITY

PhD Mathematics - fluid mechanics & chaos theory application on mathematical biology

Modelled development of heart disease and the functions of the human placenta

1997 - 2000 UNIVERSITY OF NORTHUMBRIA AT NEWCASTLE

First class BSc(Hon.) Mathematics. (plus both achievement awards)

Subjects: Cryptology, Numerical Methods, Fluid Dynamics, Elasticity, PDEs, Rigid Body Dynamics

QUALIFICATIONS

1st class BSc honours degree - Mathematics

3 A-Levels - Mathematics, German, and General Studies

13 GCSE pass-grades A-C