CHIDIKE VINCENT

SOFTWARE ENGINEER · FULL-STACK AND APPLIED RESEARCH

Sheffield, UK · vchidike@outlook.com · v.vincent@shu.ac.uk · linkedin.com/in/chidikevincent · chidikevincent.com

PROFILE

Software engineer with an MSc in Computing (Distinction) who builds production systems end to end, from architecture and database design through APIs, frontend and deployment. I work across multi-tenant web platforms, subscription SaaS, a mobile app and edge systems on Raspberry Pi, alongside applied research in computer vision, edge AI and federated learning.

I learned to code in 2023. Since then I have built four client products and led three peer-reviewed papers, one of which won Best Paper at IoT 2025 in Vienna.

CORE ENGINEERING

System architecture and API design · Database design and PostgreSQL · Multi-tenant platform engineering · Cloud infrastructure and Azure · CI/CD and DevOps · Edge computing and embedded systems · Applied machine learning and computer vision

TECHNICAL STACK

Languages: C#, Python, TypeScript, JavaScript, SQL, Velo (Wix)

Frameworks: ASP.NET Core (.NET 9 and 10), React 18, React Native (Expo), FastAPI, Node.js, Entity Framework Core, SignalR, MediatR, Tailwind CSS

Infrastructure: Azure, Auth0, Docker, PostgreSQL, Redis, Supabase, Raspberry Pi 4, Cloudflare

AI and data: PyTorch, YOLO, OpenCV, ONNX Runtime, Flower (federated learning), NeuroKit2, scikit-learn, pandas, NumPy

PROFESSIONAL EXPERIENCE

Full Stack Developer, Workplace Scientifics

Sep 2025 to present

Sheffield Hallam University · South Yorkshire Innovation Programme

- Sole engineer and designer of a multi-tenant web portal for a UK occupational hygiene company that supported 300+ businesses in 2025. Owned the work from architecture to deployment on Azure. In user testing.
- Built with ASP.NET Core, C#, React 18, TypeScript, PostgreSQL and Tailwind CSS, with tenant isolation at company and branch level and role-based access for admin and client users.
- Wrote a Python service (FastAPI, pdfplumber) that extracts structured data from uploaded PDF inspection reports, to replace an email-based report process with a searchable dashboard.

Full Stack Developer, Prompt Bnk (formerly AI Prompt Library)

Jun 2025 to Mar 2026

Mount Move Ltd · Sheffield Hallam University · South Yorkshire Innovation Programme

- Sole engineer on a live subscription SaaS for a UK startup: a curated library of AI prompts, with 150 prompts across 15 categories that I curated and rated myself.
- Built on ASP.NET Core (.NET 9), C#, React 18, TypeScript, PostgreSQL, SignalR and Serilog, with Azure DevOps CI/CD.
- At launch: 19 of 20 test tasks completed (95%), usability 84.5 out of 100, and 50+ subscribers.

Mobile App Developer, Simply Connect

May 2026 to present

Sheffield Hallam University · South Yorkshire Innovation Programme

- Building an iOS app in React Native and TypeScript that extends an existing live social prescribing web platform by consuming its backend APIs. In early development.
- Typed routes, separate authentication, onboarding and main flows, a custom tab bar, credentials held in the iOS Keychain, and TypeScript strict mode with zero errors.

Wix Velo Developer, Tables Stick

Apr 2026 to Jun 2026

Sheffield Hallam University · South Yorkshire Innovation Programme

- Rebuilt a UK primary school times-tables site into a product store with a school subscription model, protected video content, automated access codes issued and validated per school, and CPD booking.

Software Developer Intern, Traavu Limited

Jun 2024 to May 2025

Birmingham, UK

- Worked alongside the Lead Software Developer on the company's core products during a placement year alongside the MSc.

Volunteer Frontend Developer, Sheffield Hallam University *Dec 2023 to Sep 2024*

- Built React interfaces and contributed to ERD and data-flow design for an internal attendance monitoring platform for lecturers.

RESEARCH AND APPLIED ENGINEERING

Research Developer, animal welfare monitoring, Heeley City Farm *Mar 2026 to present*

Technical research lead · first author, IoT 2026, Newcastle (accepted)

- Sole developer of a five-enclosure Raspberry Pi 4B sensor network with on-device welfare classification, on-device person detection that deletes frames, a live public dashboard and a vision model comparison on 13,692 labelled images (best specialist MCC +0.732). Monitoring since July 2026, 88,000+ polling cycles. Flagged a heat stress concern in the poultry enclosure.

Research Developer, ECG-HRV mood detection *Mar to Jul 2026*

First author · IEEE CIBCB 2026, Athens

- Built a privacy-preserving mood classification pipeline in Python, evaluated across three public datasets (74 participants). Class equalisation raised minority-class recall from 7.8% to 56.3% on DREAMER. Federated learning on a six-node Raspberry Pi 4 cluster came within 2.7 points of centralised training.

Research Developer, UAV edge intelligence *Jan to Aug 2025*

Lead author · Best Paper Award, IoT 2025, Vienna

- Built the UAV and an onboard Raspberry Pi 4 pipeline (Python, YOLOv5n, OpenCV) that cut data from 906 MB to 32 MB and energy use by 77%. Best Paper from 72 submissions across 26 countries. ACM, DOI 10.1145/3770501.3770508.

PERSONAL PROJECTS AND VENTURES

Co-founder and Director of Technology, The Frank Initiative LTD *2026 to present*

Company No. 17411347 · Fund for Charity, fundforcharity.com

- Building Fund for Charity, a platform connecting donors, including the UK's Nigerian diaspora, with verified orphanages in Nigeria. Built and ready. Sole technical developer, covering architecture, full-stack development and payments.
- Clean architecture modular monolith on ASP.NET Core (.NET 10) with CQRS, PostgreSQL, React 18 and TypeScript, Auth0 role-based access for three user types, and a cross-border split payment through Flutterwave that settles the orphanage and the UK platform commission across two currencies in one donation.
- Docker, Azure, Azure Blob Storage and Redis for caching and rate limiting.

Co-founder and Technical Research Lead, Teknoozu *2024 to present*

Student technology community · teknoozu.org

- Three events with BCS South Yorkshire, Yorkshire DevOps and SHU, and 80+ students mentored: Cloud Challenge (2024), SmartPulse Hackathon (2025) and a quantum computing workshop and hackathon (2026).

Co-founder and Web Designer, Thirteen Eleven Studio *From 2021*

Formerly Thirteen Eleven Design and Technology · Nigeria

- Led client projects and managed design and delivery. Between 2021 and 2023, built 13+ client websites on Wix, without code.

EDUCATION

MSc Computing, Distinction *Sep 2023 to Nov 2025*

Sheffield Hallam University

BEng Electrical and Electronics Engineering, 2:1 (Computer Engineering major) *2010 to 2016*

Federal University of Technology, Owerri, Nigeria

AWARDS AND RECOGNITION

- Best Paper Award, 15th International Conference on the Internet of Things, Vienna, 2025
- Campus Jobs Student Employee of the Year 2025, Sheffield Hallam University
- Sheffield Hallam University Gold, Silver and Bronze Recognition Awards
- Microsoft Innovative Educator · Google Certified Educator (Level 1) · Foundational C# with Microsoft