# Kieran O'Neill, BSc.

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## The Snapshot

> A conscientious JavaScript engineer, having over 10 years' experience and well versed using JS in ES5/ES6+. However, my go-to is Typescript… I am a sucker for statically typed languages!
> Extensive commercial experience using frontend frameworks (mostly React/Next.js).
> Extensive commercial experience using Node.js in a variety of different ways; from simple web servers, to REST/GraphQL API services, to video streaming platforms, to desktop apps (Electron).
> Huge fan of Web3 technologies and have been active in the space since 2018. I have been using a lot of the tech from developing escrow contracts in Solidity and PyTeal for EVM-based chains and Algorand, respectively.
> Strict BDD & TDD practices - from writing Gherkin scripts in Cucumber to integration testing using Jest; testing is at the heart of my development flow.
> Dockerize all the thingz!
> Extensive DevOps setting up CI/CD pipelines using Terraform to init, plan, apply & destroy(!) infrastructure.
> Intermediate experience with Go (however, it is my *Go*-to language for personal projects): implemented an auth microservice that provides short-lived machine-to-machine JWTs for services to communicate.

## The Ambition

My experience as a software engineer began building native mobile apps, however, several years ago I jumped into the JS ecosystem and this has allowed me to fully embrace a full-stack discipline.

Although the majority of my experience has been as an application developer, I have spent a lot of time getting familiar with Web3 technologies, especially writing smart contracts for the EVM-based/Algorand blockchains (Solidity/PyTEAL, respectively). I have a huge crush on decentralized tech and spend a lot of my free time developing this ecosystem, be it tools, contributions or proof of concept dapps.

However, regardless of the technology I work on, my core value always lies with the user; be it customer experience, user privacy or developer experience (because developers are users too <3). Whatever I build it must be to make the user's life better; make society better.


## The Story


**Nettle Labs Ltd, London, UK.**

*Principal Engineer*                                **Dec 2022 – Oct 2023**
- > Interviewed and employed new developers.
- > Managed a team of three developers, including providing support and delegating tech decisions.
- > Implemented code etiquette and development practices such as: trunk-based development, TDD and strictly semantic git history.
- > Created a smart contract to represent carbon sequestration with a square metre of real world terrain. The contract is written in Solidity and loosely conforms to the ERC-721 standard.

*Senior Software Engineer & Solutions Architect*          **May 2022 – Dec 2022**
- > Architect and developed, from the ground up, the Nettle ecosystem.
- > Developed the Nettle API using NestJS and PostgresSQL.
- > Created smart contracts (EVM and Algorand chains) for escrow payments that underpin the Nettle Pay product.
- > Developed several customer and client facing apps using Next.js (React), such as Nettle Pay, Nettle's Merchant Portal and Nettle's internal dashboard.
- > Implemented card payments, leveraging Rapyd.
- > Developed and deployed a WordPress plugin to implement Nettle Pay on e-commerce sites.
- > Instrumented the Nettle infrastructure using Terraform and DigitalOcean.


**MoonPay, Silema, Malta.**

*Full-stack Engineer*                               **Mar 2021 – Feb 2022**
- > Implemented the enhanced customer due diligence (EDD) flow that allowed MoonPay to comply with multiple financial authorities in the US and Europe.
- > Instrumental in the design and implementation of using multiple KYC/fraud detection providers to allow for multiple KYC pipelines. This was particularly important as it removed a major point of failure that if the singular KYC provider went down, conversion rate would dramatically drop.
- > Various tweaks to the KYC process to vastly improve conversion rate.


**askporter, London, UK.**

Full-stack Engineer                                **Nov 2019 – Mar 2021**
- > Implementation of a payments service, using Stripe. However, this dependency was kept to a minimum, thus, allowing the service to have greater flexibility to meet the challenges the

platform as whole is trying to solve for its customers.
> Moved the existing monolith architecture into a multi-tenancy microservice architecture.
> Implemented Terraform for the whole platform.
> Moved the platform from Auth0 to a custom auth microservice implemented in Go.

**Local Heroes, London, UK.**
*Contract Full-stack Engineer*                    **Nov 2018 – Nov 2019**
> Maintenance and extension of the microservices infrastructure using NodeJS, GraphQL, Docker, Terraform and AWS.
> Creation of various front-end applications using React and React Native (mobile apps).
> Implementation of a new payment service using Stripe and AWS Lambdas.

**Bulb, London, UK.**
*Contract Senior JavaScript Engineer*             **Apr 2018 – Oct 2018**
> Extended the NodeJS API backend for a variety of services across the organisation.
> Implemented new features for the frontend account portal.
> Part of a full rewrite of the Bulb sign-up site; moving from Angular 1.5 to React/TypeScript.

**Discovery Networks, London, UK.**
*Contract Senior JavaScript Engineer*             **Jul 2017 – Apr 2018**
> Greenfield project to build a new web player component that was used on the [eurosport.com](eurosport.com) site during the Winter Olympics 2018 and watched by over 2 million people over 2 weeks.
> Provided lead direction on technology stack, front-end architecture, styling guidelines and implemented a full CI/CD pipeline using CircleCI.
> Used a strict BDD approach with every ticket implementing a "3 amigos" session that bore feature files (Cucumber) written before code.
> All code was undertaken using TDD, with the unit tests for the player component (Jest/Enzyme) and integration tests for the Eurosport/3rd party sites (Selenium) the responsibility of each developer.

**YouView Ltd, London, UK.**
*Full-stack Software Developer*                   **Jun 2016 – Jul 2017**
> Building of UI and middleware using languages such as TypeScript, Swift and Java, to deploy a cross-platform device ecosystem: TVs, STBs, Chromecast, Mobile and wearables running Android/iOS and embedded web-browsers.
> Cross-platform Mobile UI Development with HTML/JS hybrid solutions using common JavaScript frameworks and libraries.
> Development of cross-platform services, libraries and frameworks for Mobile and embedded Linux platforms.

**Element 43 Ltd, London, UK.**
*Freelance Software Developer*                    **Oct 2015 – Jun 2016**

> [Certua](#) - a serverless React frontend to a headless CMS. The website needed a strong emphasis on SEO, so careful use of routing had to maintain good meta data and analytical reporting.
  > [Rindle](#) - an Angular app where I developed a lot of features for the frontend. This was a cool project because they are based in the US and I was working remote, so stand-ups were at 1pm!
  > [Diverse Dance Mix](#) - full-stack developer for their customer facing app and their admin CMS. Both apps were fully bespoke using and built using the MEAN stack.

**Radical Company Ltd, London, UK.**
*Senior Software Developer*                    **May 2014 – Oct 2015**
  > Worked on client-side and server-side applications using technologies ranging from iOS & Android, to web applications using Angular, PHP, WP, Node.
  > Built many apps for high profile clients such as Barclays, Lloyds, Legal & General and Nestle. Other clients included EIC, Royal Borough of Kensington and Chelsea and Shoot magazine.
  > Co-authored the implementation of an in-house agency management platform. Acting as a fullstack developer, I built both backend and the frontend web & iOS apps. Later, we white labelled the software to another consultancy.

**Car Delivery Network Ltd, Thame, UK.**
*Mobile Developer*                             **Jul 2012 – May 2014**
  > [vinDELIVER](#) (Android) - sole developer for the maintenance of the flagship Android application.
  > [vinDELIVER](#) (iOS) - sole developer for the implementation of iOS version of the flagship application.
  > vinREQUEST (Android) - designed, implemented and deployed a new native Android application that moved some of the core functionality of the main web app to mobile.

## The Prologue

**Oxford Brookes University, Oxford, UK.**
  > BSc Computer Science                **Sep 2009 – Jun 2012**
Dissertation: "Using Inference And Disambiguation On Question-driven Input To Achieve Story Comprehension" - The natural language understanding (NLU) program I developed was selected to be presented in the University's promotional video (check my LinkedIn profile, the video will make you chuckle) and I have showcased it at several opening days for prospective students.

**Open University, UK.**
  > Diploma in Computing               **Oct 2007 – Jun 2009**


## The Addendum

I have a passion for building applications and tools that uplift communities, and contribute to the greater good. I am a great advocate of open source and so I spend a lot of my time building or contributing to projects that share this philosophy. Here is a list of a few of these projects that I either maintain or actively contribute:

- Kibisis – an AVM (Algorand Virtual Machine) blockchain wallet that focuses on blockchain assets as a utility.
- Plauser – a simple browser extension that pauses a YouTube video in any tab.


## The Spare Moments

Although I spend a lot of time learning about new tech, my current focus is heavily invested in emerging blockchain & decentralized technologies and making the world a more decentralized place :)

During the moments of my life where the driver seat is vacant, I enjoy gaming (story-driven games are my favs), space opera novels, running, sailing and freediving.