

# SEAN NICHOLLS

MEAN STACK + MOBILE SOFTWARE DEVELOPER



## EXPERTISE

- **Cybersecurity & Forensic Computing**  
Cryptography, Ethical Hacking, Pen Testing & Forensic Computing.
- **Internet of Things (IOT)**  
Bespoke Hardware and Software Development on multiple platforms: ARM, ESP8266, ESP32, Raspberry Pi, Arduino, AVR, PIC and Cloud IOT Development with MEAN Stack on Amazon AWS, Microsoft Azure. Bluetooth 4.0, BLE.
- **Full-Stack Web Development**  
MEAN (Mongo, Express, Angular, Node) with frameworks such as Bootstrap, React, jQuery and build tools such as Gulp, Bower and LESS/SASS.
- **Full-Stack Mobile App Development**  
Android - Java, iOS - Objective-C, and Hybrid - HTML5, CSS & Javascript with Cordova and Ionic.

## EXPERIENCE

- **IOT Engineer**  
**Sean Nicholls Consulting LTD** 📍 Belfast, Northern Ireland  
Hardware and Software development for IoT and embedded devices with Machine Learning (AI), OpenCV and Sigfox/LoRa communications.
- **Senior Developer (Backend)**  
**Wia** 📍 Dublin, Ireland  
Wia is a Cloud Platform for Internet of Things (IOT). As lead engineer, I was responsible for developing the back-end with Node and SQL and worked on various parts of the public API back-end. My role also included participating in providing professional services (consulting and development) for clients to develop custom hardware and software as needed.
- **Senior Developer (Fullstack + Mobile)**  
**Verivoo** 📍 Dublin, Ireland  
Verivoo is a new way to discover and share your next memorable dining and travel experiences, with verified reviews and smart recommendations. I was responsible for the development of back end API using Nodejs and MEAN stack alongside Ionic cross platform mobile apps.
- **Director**  
**TOG Hackerspace (DAC)** 📍 Dublin, Ireland  
TOG is a hackerspace based in Dublin City Centre. It is a shared space where members can have a place to be creative and work on their projects in an environment that is both inspiring and supportive of both new and old technologies. Duties as a member of the board include ensuring the day-to-day running of the organisation, ensuring that finances are managed wisely, and that the objectives of the organisation are met.
- **Senior Node Developer**  
**PSI Mobile** 📍 Dublin, Ireland  
PSI offers a Mobile Enterprise Solution Platform (MEAP) for Utility, Energy, Telecommunications and Government sectors in over 40 countries worldwide. Responsibilities included Architecting and engineering a cloud storage API for mobile devices, forking the MongoDB native libraries to provide functionality such as document versioning, documenting and making recommendations to improve productivity and workflow from implementing Continuous Integration to adopting an appropriate testing strategy and building Microservices using the MEAN stack and Hapijs.

## CONTACT

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## SKILLS

Internet of Things (IOT)  
Cybersecurity  
Computer Forensics

MongoDB  
Express  
Angular  
Node

Android (Java)  
iOS (Objective-C)  
Cordova (HTML/CSS)

Git  
Git-Flow branching

Agile Software Development Lifecycle

IEC 62304 Medical Device Software  
Development Lifecycle



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## EXPERIENCE

- Sep 2016  
Feb 2016

● **Senior Android Developer**  
**BlueBridge Technologies** 📍 Dublin, Ireland  
Developing FDA regulated Mobile Medical Apps (MMA) for the healthcare/medical industry while conforming to IEC 62304 International Standard for the software development of medical devices whilst in an Agile development environment. Working on the native Android app, I worked on the Bluetooth 4.0 / BLE communication protocol and high performance graphing of blood glucose values, and various UX/UI tasks as needed.
- Apr 2015  
Jul 2014

● **Senior Software Engineer**  
**RedHat** 📍 Waterford, Ireland  
Leading the development of a Mobile Medical App (MMA) for Baystate Health on iOS and Android with Cordova and Ionic framework. Utilizing custom security plugins built in native Android (Java) and iOS (Objective-C) to meet with strict security requirements, in addition to a back-end HIPPA-Compliant API built using the MEAN stack. Participation in code reviews, mentoring junior developers, and architecture design while communicating directly with client to manage expectations to ensure that the project met strict deadlines.
- Jul 2014  
Jan 2013

● **Chief Technology Officer**  
**Hypercube** 📍 San Francisco, USA  
As chief technical decision maker I was responsible for the full development stack, engineering research and development. We designed and built amazing things at Hypercube, from forking and building upon large Open Source projects such as Google Chrome, Android and Node.js to researching and developing full life-cycle mobile development systems (Android, iOS) with custom back-end and API with MEAN Stack and custom authentication models, we really pushed the envelope of what was possible.
- Jan 2013  
Aug 2011

● **Chief Technology Officer**  
**Fandom** 📍 Dublin, Ireland  
Developed an end-to-end solution including server-side Social Media Aggregation delivered to Mobile (iOS) via JSON package. MongoDB, Express and Node stack including developing a Twitter streaming API library written for Node.



## EDUCATION

- present  
2017

● **Applied Cybersecurity**  
**Queen's University Belfast** 📍 Belfast, United Kingdom  
Modules: Network Security & Monitoring, Ethical & Legal Issues in Cyber Security, Software Assurance, Computer Forensics, Malware Applied Cryptography.
- present  
2017

● **Certified Ethical Hacker (CEH)**  
**EC-Council** 🌐 Online  
Self-study course in computer and network security.
- 2010  
2005

● **Bachelor of Science with Honours in Software Systems**  
**National College of Ireland** 📍 Dublin, Ireland  
Second-class honours, upper division (2:1)
- 2005  
2004

● **Certificate in Computer Programming**  
**Roslyn Park College** 📍 Dublin, Ireland  
CITXX, NFQ Level 5