LUCAS CULLEN

CONTACT INFORMATION

INTRODUCTION

My name is Lucas Cullen, I have been a professional software developer for over 20 years. In 2012 I discovered bitcoin and began hosting regular bitcoin meetups since 2013. This passion for bitcoin and blockchain has presented me with some exciting opportunities such as giving evidence at the Senate Enquiry at Parliament House in 2014.

Recently I have been freelancing and contributing back to the blockchain community through my own open source projects and pull requests to others.

FUN PROJECTS

The following are some of my side project or open source projects I have contributed to or involved in.

- DDemonstrate.org: An ethereum / IPFS based platform to allow safe and secure socialisation of demonstrations
- Digital Dogs: An ERC721 based project to trace the linage of pedigree dogs on the public ethereum chain to help prevent the cruelty of animals and hereditary disease
- Open Collective: Is a React application that allows
- Beaker Browser: An open source NodeJS p2p browser
- Lbry.io: LBRY is a secure, open, and community-run digital marketplace. Go / C++ / NodeJS / React / Electron
- Crypto Horses: An ERC721 horse trading game.

LANGUAGES / SKILLS

I have developed in the following languages on commercial projects.

- C#
- Solidty / Vyper
- Haskell / F#
- Java / Scala
- Go
- NodeJS / React / React Native / TypeScript
- Swift
- Ruby
- C / C++
- Python

WORK EXPERIENCE

FREELANCE PROJECTS

- Qoin: Bartercard's native ERC20 token using Kalido, AlphaWallet and AWS functions.
- MinerToken.io: ERC20 based commodity based project to tokenize mining minutes.
- BeefLedger.io: A token based platform for the province of meat and voting of participants.
- Gold Silver Standard: A commodities based ERC20 contract on ethereum mainnet.
- GoldGramCoin: I was engaged to perform a security audit on an ERC20 contract in Manila via security auditing company Corsec.
- Skrilla: An ERC20 for an e-Sports platform.

GEORA PTY LTD

SNR BLOCKCHAIN DEVELOPER : AUGUST 2019 - JAN 2020

Geora is the protocol layer behind supply chain blockchain projects, such as AgriDigital. My duties including developing solidly based contracts and AWS / GraphQL API, as well as building client facing apps on React / Typescript consuming our APIs.

- GraphQL
- GO
- TypeScript / React
- Postgres
- AWS
- ConsenSys Besu IBFT chain on AWS

TRAVELBYBIT

SNR BLOCKCHAIN DEVELOPER : FEBRUARY 2019 - AUGUST 2019 (6 MONTH CONTRACT)

TravelbyBit is a Brisbane based startup promoting crypto currency adoption.

- Develop RESTful APIs in NodeJs / Express
- Frontend development using handlebars templating
- Unit testing in Mocha
- Hosting on AWS and Heruko

CONSENSYS

SNR BLOCKCHAIN DEVELOPER : AUGUST 2017 - SEPTEMBER 2018

ConsenSys is a remote first, distributed venture production studio using the ethereum blockchain. I was hired as one of the first APAC employees after winning the hackathon in New York in 2017, to role out capabilities in the region.

- PegaSys spoke: Re-write of the ethereum client in Java. Contributed to JP Morgan's Quorum product in Go and Haskell.

- Virtue Poker spoke: Distributed poker application using smart contracts written in Solidity, React-Redux and Electrum.
- Solutions spoke: Delivered a banking solution for the Philippines Union Bank and other regional banks called Project i2i, using Solidity, TypeScript and hosted on Microsoft Azure using their HSM key signing.

AVANADE - ACCENTURE

MARCH 2015 - AUGUST 2017

Created in April 2000 by two industry giants – Accenture and Microsoft – Avanade had one goal: deliver innovative services and solutions to enterprises world wide using the Microsoft platform. My role as a consultant was to help deliver on enterprise solutions:

- Team lead for one of the deliver teams on the Australian Tax Office new tax portal. The build was .Net, TypeScript and KnockOut JS running on Microsoft Azure.
- Lead developer on project Ubin in Singapore with the Singapore Monetary Authority and JP Morgan on the distributed ledger project using Solidity and Quorom on Microsoft Azure
- Was invited to speak at "Tech Time" in Seattle, US on blockchain technologies on Microsoft Azure.

SITE CORE / MS DYNAMICS - RSL QUEENSLAND (CONTRACT)

AUGUST 2014 - FEB 2015

The Returned and Services League Australia (RSL) is a support organization for men and women who have served or are serving in the Defense Force.

I was engaged to help the RSL with their lotteries website, built in Site Core CMS, ASP.Net MVC and using MS Dynamics CRM as a backend.

SHAREPOINT DEVELOPER -ZETTA 1 / DEPARTMENT OF EDUCATION (CONTRACT)

AUGUST 2013 TO JULY 2014

I decided to begin contracting at DETE via a consultant Zetta 1 for a 12 month SharePoint project.   The project ran well and was delivered in 4 sprints. I worked closely with the Stakeholders and BA's.

TEAM LEADER BIZTALK SALESFORCE INTEGRATION – BANK OF QUEENSLAND, BRISBANE

JANUARY 2011 TO AUGUST 2013

I was offered a position as a .Net SharePoint developer and help Bank of Queensland with their software engineering processes, story card writing, source control management, work item customization and branching strategies. I became the de facto TFS administrator and merge master.

I was promoted to the Team Leader for a BizTalk – Salesforce integration piece to lead a team and be scrum master of 10 developers and contractors. The project was a vital part of Bank of Queensland's ongoing technology strategy to implement an Enterprise Service Bus and to decouple the banks systems.

As scrum master, I was responsible for designing the software development life cycle and sprint planning, and ensured working software was delivered at every sprint. I was acting manager for the team during periods of change.

ANALYST DEVELOPER -TSA SOFTWARE, BRISBANE

DECEMBER 2008 TO JANUARY 2011

This medium sized software house has been looking to expand their products by offering Web Applications to their customers. Most of these products are reporting applications, leveraging off the core products database and Cube.

My duties involved writing enterprise Asp.net applications for clients such as Crown Casino, University of Tasmania and QUT. I was heavily involved in the design, construction, unit testing, integration testing and the deployment.

The technologies used include,

- ASP.Net Web Form Applications
- MVP & MVC Web Applications
- AJAX
- Silverlight & WPF
- Windows Services
- Integrating with SQL Server OLAP Cubes
- SSRS Reports
- Some VB6 bug fixing (on older applications)
- SVN, Mercurial, Hudson, TFS

Although the company has a quite large customer based, there is a lack of procedures and planning. I took it on board to try and correct some of these issues by introducing the following

- Introduce design patterns such as MVC & MVP, along with other GOF patterns.
- "Common" .Net Libraries
- Coding standards documents
- SharePoint for project collaboration
- Informal code reviews
- Minute taking at meetings
- Database driven Unit Testing (Visual Studio 2008 Team System and CUnit)
- Database driven Web Testing (Visual Studio 2008 Team System)
- Team foundation server 2010.

ANALYST DEVELOPER - CONCEP GLOBAL, LONDON, UK

APRIL 2007 TO SEPT 2008

My role was a client facing analyst developer role to develop bespoke solutions for clients. The solutions typically evolved writing windows services that integrated third party CRM systems with an ASP email marketing solution called "Campaigner". ASP.net front end web applications control panels where created for clients to modify database settings.

The CRM systems I developed on are listed below.

- Microsoft Dynamics
- Microsoft Share Point
- Sales Force
- Lexus Nexis InterAction (51, 55, 56)

Other ASP.net projects where built to add value to the core Campaigner product. They involved writing a presentation layer over Campaigner's xml api layer to add value to the product.

Technologies used during this role include

- OO Agile / TDD development in .net framework 2.0 and 3.5
- XML RPC and SOAP
- SQL Server 2005 & 2000 Databases

APPLICATIONS DEVELOPER & DATABASE ADMIN – PHOTOBOX.CO.UK LONDON, UK

SOFTWARE DEVELOPER OCT 2003 TO APRIL 2007

My duties included creating and supporting mission critical bespoke applications in vb6, vb.net and C#.net to control order flow of a large online retailer that operates in a 24/7 environment. The environment was split into 4 areas.

1. The client facing website was responsible for the customer experience, photo / gallery management and the ecommerce.
2. The production server application, responsible for order collection off the website via XML, order generation and order production. Such as image manipulation using the dot net framework and third party image libraries and creating PDF "documents"
3. The CRM GUI for production and support staff to manage the order work flow.
4. In house asp and asp.net instrumental websites, responsible for application settings, server monitoring and reporting.

In the 3 years of my employment, the company has grown 800%, and this growth has created stresses on the application and the underlying database. It was my responsibility to up scale and redesign these applications to vb.net while maintaining the original application.

I was also responsible for performance & reliability of the large and volatile live database, averaging 2 million order item rows per month, and used by over 100 production and support staff.

To minimise database load I introduced message queuing, "queue" style tables to reduce table scans on the main customer order table. "Active" rows where decomposed into smaller tables and purged after use. Windows message queuing has been introduced as well, to pass serialized objects between dot net applications.

- Lead programmer and architect on live production system environment and database.
- Database performance.
- SQL server 2000 and 2005 administration, backup and replication across 3 physical environments. Creating and maintaining database objects.
- Implementing and supporting active directory and exchange 2003, 2000
- Supervised contract programmers
- Developed and implemented disaster recovery plan
- Asp and aspx monitoring tools
- Soap / wsdl web services / interfaces to third parties / IIS
- XML Rpc with linux based servers.
- Some DTS, Crystal and other statistics reports
- Visual SourceSafe
- Administration and support of large terabyte image servers
- General network and IT support

APPLICATIONS DEVELOPER & SYSTEMS ADMIN – VZDV ST ALBANS, UK

APRIL 2002 TO SEPTEMBER 2003

Van Zyle and De Villiers was a small mechanical engineering firm, where I was responsible for the general IT hardware and software support, as well as develop applications for automating Office, AutoCAD and other third party applications.

- Programmer for an office management database
- Implementing and supporting active directory and exchange 2000
- Microsoft ISA (proxy and firewall solution)
- VBA coding for Office applications and AutoCAD
- Raid / Tape backups
- Terminal services and VPN setups
- General network and IT support

IT / CAD MANGER – ELECTRICAL DESIGN GROUP, BRISBANE

JANUARY 1998 TO FEBRUARY 2002

In January 1998, I commenced full-time employment with the Brisbane office of Electrical Design Group (EDG). Electrical Design Group is a small firm of consulting electrical engineers, based in Brisbane and the Gold Coast, with the Brisbane office specialising in lighting design.

- Designed and implemented a custom contacts and document management database
- Developed and implemented disaster recovery plan
- Automating office and AutoCAD applications

EDUCATION

Currently Studying (4th year) a Bachelor of Mathematics at Queensland University of Technology part time. I also have completed a number of Microsoft certified courses.

- Microsoft Azure 2 Day Instructor Lead
- BizTalk 5 Day Instructor Lead
- SharePoint 2010 5 Day Instructor Lead New Horizons
- Salesforce Admin 5 Day Instructor Lead
- Course 2565: Developing Microsoft .NET Applications for Windows (Visual Basic .NET)
- Course 2939: Programming Microsoft SQL Server 2005
- Course 2940: Building Service and Notifications Using Microsoft SQL Server 2005
- Course 2941: Creating the Data Access Tier Using Microsoft SQL Server 2005
- Collection 2938: Data Availability Features in Microsoft SQL Server 2005
- Collection 2936: Installing and Securing Microsoft SQL Server 2005
- Collection 2937: Administering and Monitoring Microsoft SQL Server 2005

MS CERTIFICATIONS

I am a Microsoft Certified Professional Developer

- 70-536: Microsoft .NET Framework - Application Development Foundation
- 70-528: Microsoft .NET Framework 2.0 - Web-based Client Development
- 70-547: Designing and Developing Web-Based Applications by Using the Microsoft .NET Framework

DESIGN PATTERNS AND OBJECT ORIENTATED PRINCIPALS

I have studied design patterns and OO principals for a number of years. I have implemented design patterns and composite patterns in most applications that I have been responsible for.