

Bachelor Computer Systems Engineering

Assessed by NZQA as Bachelor of Information Sciences (Information Technology)

Degree at Level 7

Instituto Politécnico Nacional -UPIICSA, Mexico City.

Digital Electronic Systems Technician.

IPN - Centre of Scientists and Technology Studies, Mexico City.

#### **EDUCATION**

 I0 years experience in .Net Framework and NodeJs - Backend Solutions

Provide IT Support to users (software and hardware).

C#,VB and T - Sql development.

Software and databases Architecture.

Project management.

Team leading

7 years experience in Unity 3D, Unreal Engine & Web Apps

C# Development in Unity 3D

Graphic blueprint development in Unreal Engine

VR and AR projects using Oculus Rift/VIVE, Android and iOs.

Phone apps using PhoneGapp.

## 4 Project Management and Team Lead

Project management & multicultural and multidisciplinary team leading.

Manage agile scrums and track team progress.

Create schedules and manage milestones.

Mentoring our Stickmen Media intern.

Occasionally mentoring for young entrepreneurs (Ministry of awesome)

Mentoring Civil Engineering students to use digital technologies in their base field

#### PROJECTS -SFE (NOVARTIS), MEXICO CITY 2007

Design and develop a software solution to share sales transactions between SFE (Novartis distributor) and Novartis Corporate.

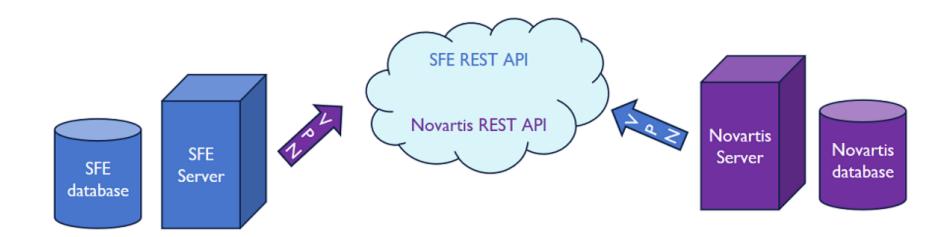
- System architecture design.
- C# .Net development client and web server solution.
- Database design.
- The basis of this project were later used to develop an internet store for the same business

## STRV

#### QUOTE SELECTOR – SCHNEIDER ELECTRIC– 2008

## GABINETES PARA EXTERIORES NEMA 4X/IP66 MONTAJE AL PESO CON UNA PUERTA MONTAJE AL PISO CON DOLBE PLIERTA MONTAJE A LA PARED DE GENERAL GABINETES PARA EXTERIORES NEMA 4X/IP68 PARA AREAS CLASIFICADAS MONTAJE AL PISO CON UNA PUERTA CON SISTEMA DE PRESURIZACION Y PURÇA AUTOMATICA MONTAJE AL PISO CON DOBLE PLERTA CON SISTEMA DE PRESLIRIZACION Y PURGA AUTOMATICA MONTAJE A LA PARED DON SISTEMA DE PRESURIZACION Y PURBA AUTOMATICA

### PROJECTS -SFE (NOVARTIS), MEXICO CITY 2007



# PROJECTS - CROWDFUNDING VIRTUAL REALITY HEADSET, MEXICO CITY 2013



Design and produce a low cost virtual reality headset.

- \$20,000 NZD successful project (3 months).
- Team leading.
- Product design.
- Media spokesman.
- 3D printing.
- Leading AR programming workshops.
- Fondeadora: <a href="https://fondeadora.mx/projects/lentes-de-realidad-virtual-virtual-case">https://fondeadora.mx/projects/lentes-de-realidad-virtual-virtual-case</a>

# PROJECTS - CROWDFUNDING VIRTUAL REALITY HEADSET, MEXICO CITY







¿Cómo funciona? Descubre

Publica tu

Buscar proyectos



ES \$ MXN V

#### Lentes de Realidad Virtual - Virtual Case

Por Diego Torre



100%

Fondeadores:

73

Tiempo restante:

23 hrs. 41 min. 50 seg.

¡Impúlsalo aquí!

# PROJECTS – GLADE VIRTUAL REALITY EXPERIENCE, MEXICO CITY 2014





Design and develop an exciting VR experience through a car racing video game.

- VR experience using Oculus rift Dev Kit 1.
- C# Unity 3D development.
- Project management.
- Sales experience.

# PROJECTS – GLADE VIRTUAL REALITY EXPERIENCE, MEXICO CITY 2014









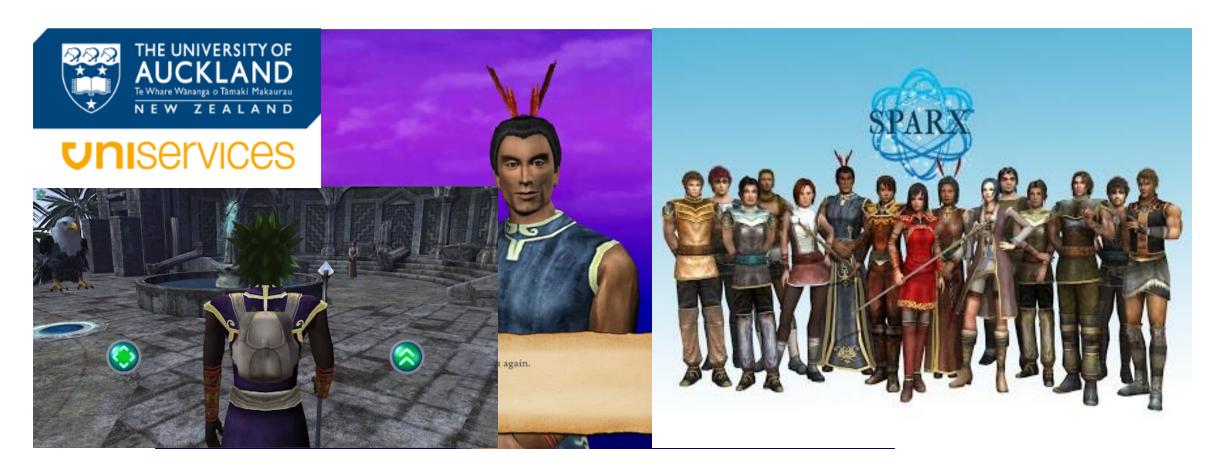
#### PROJECTS – SPARX – AUCKLAND UNISERVICES, 2015

Maintain and upgrade code and graphics of the videogame.

- We improved the game memory usage by loading in memory only the assets that will be used in a certain game level..
- We developed a new sounds effects/speech manager algorithm by managing the execution of each sound file through a state machine.
- We fixed a lost data issue by ensuring the sending and reception of the starting session sequence between client and server by managing the Call - Response times using an state machine.
- Games can be serious!



## PROJECTS - SPARX - AUCKLAND UNISERVICES, 2015





#### PROJECTS – ITM GO FISH – ITM, 2016

Design and develop a VR fishing game for mobile phones.

- We developed a videogame and a leaderboard webpage in three weeks.
- Basic IA for fish swimming.
- Interim mentoring.
- Agile Scrum methodology.

#### PROJECTS – ITM GO FISH – ITM, 2016







#### ITM lures builders into app with virtual reality competition





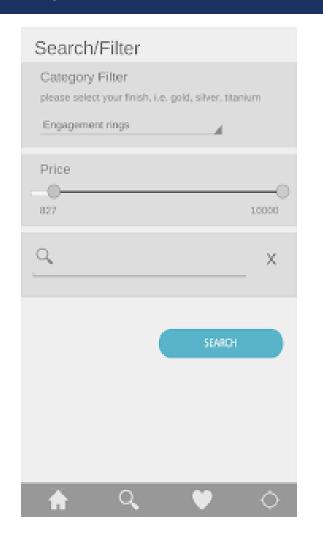
#### PROJECTS – JELLELLAR – CALLAHAN INNOVATIONS, 2017

Design and develop an AR app for ring testing.

- OpenCV library.
- Hand recognition by image processing.
- Ring positioning based on hands shape.

# JEWELLAR

#### PROJECTS – SPARX – CALLAHAN INNOVATIONS, 2017

























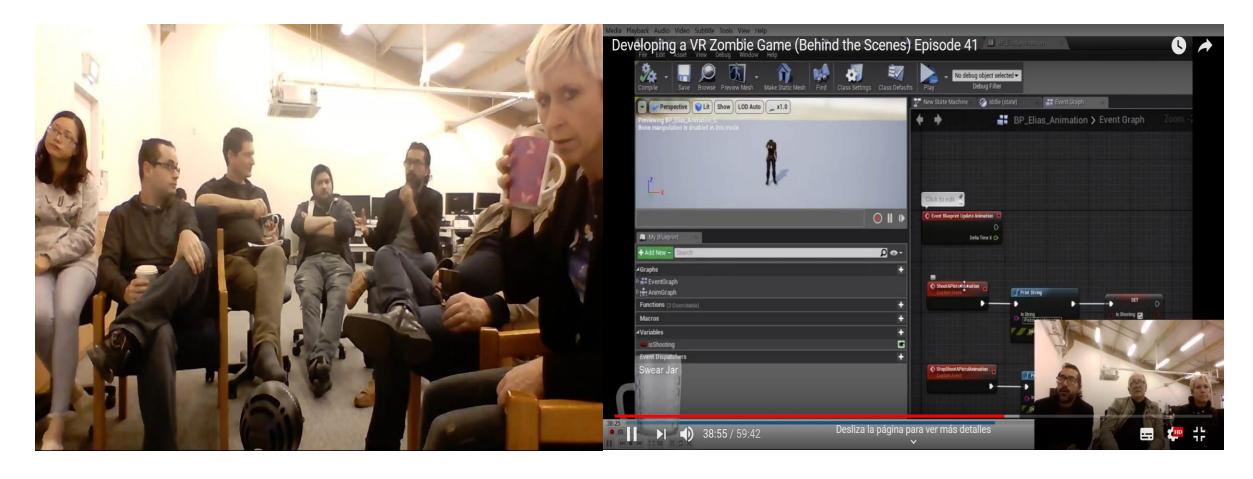
#### PROJECTS – AFTER THE LIGHT – STICKMEN MEDIA, 2018

First-person character animations and weapons management.

- Unreal Engine blueprints programing.
- Animation implementation.
- Weapon management.



#### PROJECTS – AFTER THE LIGHT – STICKMEN MEDIA, 2018





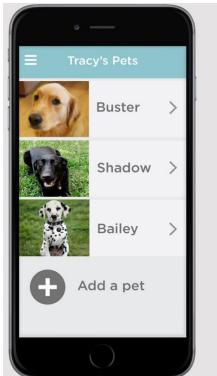
#### PROJECTS - DOGGONE - HAMILTON CITY COUNCIL, 2018

Design and develop an app that can detect iBeacons in the nearby area and save relevant tracking information.

- Understand the challenge and design a solution .
- Evaluate inhouse skills (as a guideline from the director).
- Redesign the solution.
- Develop and delivery



## PROJECTS - DOGGONE - HAMILTON CITY COUNCIL, 2018











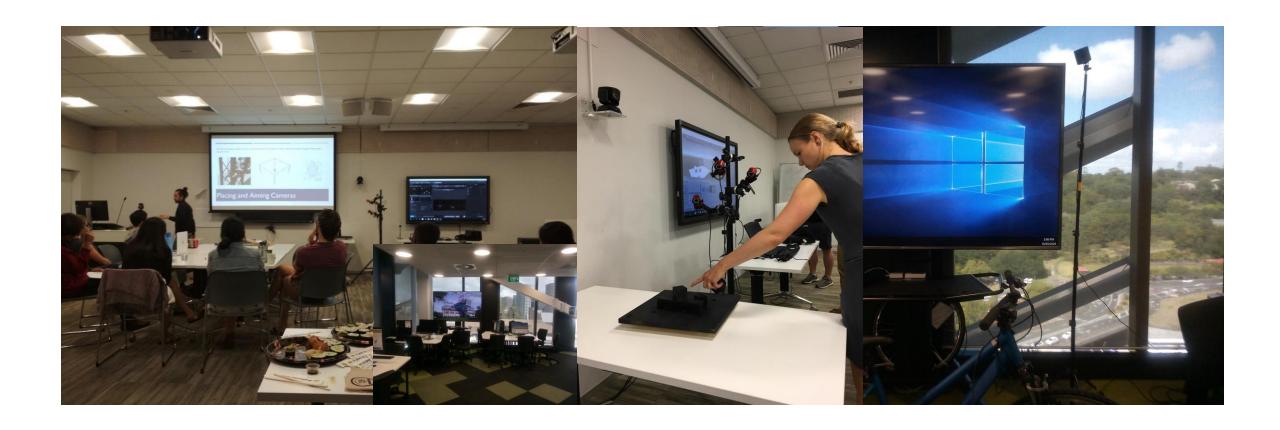
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#### SMART DIGITAL LAB – THE UNIVERSITY OF AUCKLAND - 2019



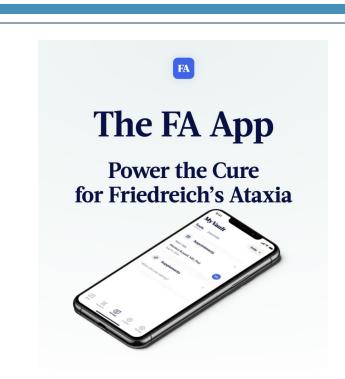


#### FA APP - STRV

Design and develop a backend REST API for FA APP.

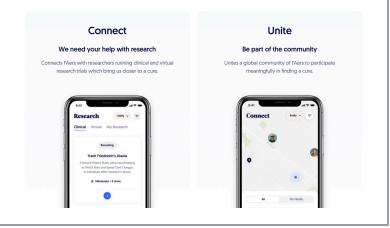
- Using Node Js Typescript
- Automated testing using Github actions
- Containerized architecture ([API Server] [Database Server])
- Deployed in AWS with the same containerized architecture.







**FA APP – STRV – 2020** 



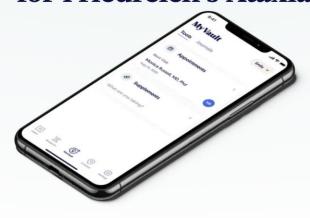
# STRV

#### **FA APP – STRV – 2021**



# The FA App

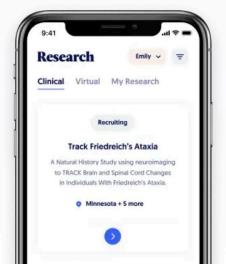
Power the Cure for Friedreich's Ataxia



#### Connect

#### We need your help with research

Connects FAers with researchers running clinical and virtual research trials which bring us closer to a cure.



#### Unite

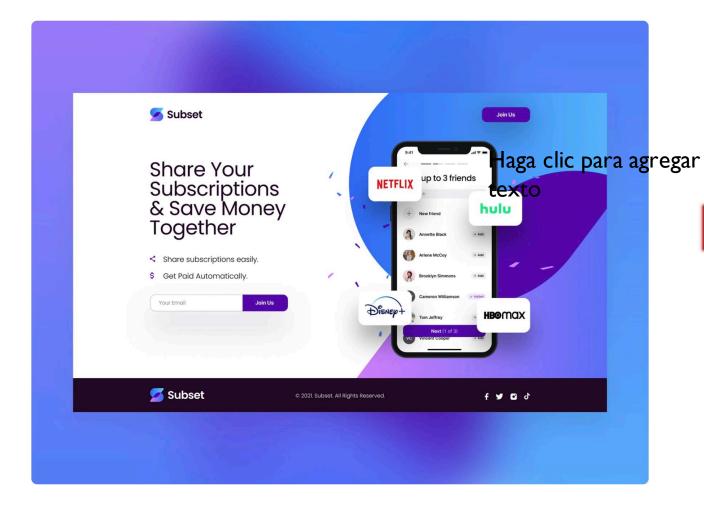
#### Be part of the community

Unites a global community of FAers to participate meaningfully in finding a cure.



# STRV

#### SUBSET - STRV - 2021













#### UTECTURE – DONOVAN GROUP – 2023

Design and develop a design home application that instantly provides a price, schedule materials and 3D model.

- Using Java Spring for the backend
- Fronted developed in Php
- Creation of house parts geometries (procedural mesh) represented in ThreeJs (java script) and lately migrated to Unity 3D (C#) through an API with the aim of providing VR/AR experience.

# STRV

#### UTECTURE – DONOVAN GROUP – 2023







# THANK YOU