# JACOB VALDEZ

## **Software Engineer**

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## **EMPLOYMENT**

## Full-Stack Pipeline Engineer (IC)

#### Flora Creative Systems

**#** 2024 - 2024

% florafauna.ai

- Worked alongside team of 10 other software engineers to build a node-based AI media editor
- Implemented node editor drawing integration and user credit tracking refinement

## Developer (IC)

#### **UTA College of Social Work**

**2024 - 2024** 

Arlington, TX

 Helping interns complete MyAmble: a full stack PWA for social work surveys with real-time LLM-driven analyses

## **Full-Stack Founding Engineer**

## **Everything Estate Sales**

## 2024 - Present

% everythingestatesales.com

• Building full-stack Next.js PWA web app for Afternoon Estate Sales LLC

# **Software Engineer**

## Motio Inc

m June 2022 - Jan 2023

% motio.com

- Developed Soterre for Qlik Sense
- Intern June Aug. Full-time SE Aug. '22 Jan '23

#### **Student Research Assistant**

#### IT Lab, UTA

🛗 June 2021 – May 2022

% itlab.uta.edu

- Collaborated with a research group to evolve and test a flask-based statistical visualization tool CoWiz (renamed as Dash)
- Developed full-stack web server MLN-Dashboard using the Next-React-GraphQL-Strapi stack

# Student Research Assistant

### **UTA College of Social Work**

🛗 June 2021 - May 2022

Arlington, TX

- Maintained and enhanced multi-platform (iOS and Android) data collecting application MyAmble and web admin dashboard
- Stack: JavaScript, Firebase, Flutter (mobile), and Vue (admin dash)

## **Crew Trainer**

### McDonald's

May 2016 - Mar 2020

Midlothian, TX

 Led safety committee and addressed employees during 30-minute monthly safety meetings

## **ACHIEVEMENTS**

2022 Future Texas Business Legend Award Finalist

Paper accepted

Extensible Architecture for Drill-Down and Visualization of Complex Data

Broaden and Build Conference Honorable Mention

UTA College of Social Work 

Sept 2021

for presenting work Broadening and Building Beyond Classical Reinforcement Learning

SCRF Honorable Mention + \$100 award

for presenting work Predictive General Intelligence

# **CERTIFICATIONS**

AWS Certified Machine Learning – Specialty
AWS Feb 2022

Google TensorFlow Developer Certification

Google Developers April 2021

DeepLearning.AI TensorFlow Developer

Coursera 🛗 Oct 2020

DeepLearning Specialization by DeepLearning.Al

Coursera Sept 2020

AWS Certified Developer - Associate

**AWS** Mar 2019

AWS Certified SysOps Administrator – Associate

**AWS** Mar 2019

AWS Certified Solutions Architect – Associate

**AWS** ## Feb 2019

**AWS Certified Cloud Practitioner** 

**AWS** Mov 2018

- Trained employees on-the-job and formally
- In addition to 4 years of formal education, actively used Spanish on-the-job

# **EDUCATION**

## **B.S. Computer Science**

## The University of Texas at Arlington

Arlington TX

GPA 3.6/4.0

#### A.A.S. in Mathematics

## **Navarro College**

# **PROJECTS**

#### Limboid

## **Humanoid robot**

Feb 2019 - Present

% limboid.ai

- Hydraulic actuated, endoskeletal humanoid robot
- Technologies: 3D Printing, CNC routing, plasma cutting, PCB fab
- Under construction. Artifacts available on request

#### **MLN-Dashboard**

#### Modular server for data visualization

defined the definition of the

JacobFV/mln-dashboard

**%** Presentation

• Stack: typescript, react, next.js, GraphQL, Prisma, and later Strapi

## **Jnumpy**

## Another autograd/deep learning/RL library

₩ Oct - Nov 2021

JacobFV/jnumpy

## 20Q: 20 Questions Android Game

#### Android app developer in a 4-person group

JacobFV/20Questions

% jacobfv.github.io/projects/20Q

- Stack: Android, SQLite, Java, Kotlin
- Design, development, and testing

## multigraph-nn

## Dynamic time multi-graph neural network framework

May 2021

JacobFV/multigraph-nn

• Stack: Python, tensorflow, keras

# DesparadosAEye

#### chatGPT before chatGPT

kmosoti/DesparadosAEYE

- Stack: Android, SQLite, Java, Kotlin, TFLite, BlenderBot
- Organized team, general app architecture & development, and MLOps
- I wont claim it was as good as chatGPT, but it was for the time

## **Stanford Open Datathon Group Project**

## Performed data science in 5-student international group

% jacobfv.github.io/projects/2021\_SODP

## **Home Internet Factory**

#### CNC router + 3D printer + Raspberry Pi 4 + camera + Internet

% jacobfv123.medium.com/industrialautomation-home-bba924a3b2f0

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## **Workplace Surveillance System**

## Employee phone detection computer vision system

₩ July 2019

JacobFV/Workplace-Surveillance-System

- Stack: web 1.0, tensorflow.js, mobilenet
- Demonstration to employer succeeded identifying employees on their phone, but employer didn't end up purchasing a subscription

#### **Big Blender Farm**

#### **AWS Generative Blender Design System Concept**

- Although never completed, became more familiar with Blender python scripting, general animation workflow, web application development, and the internet
- Planned extensively how to use Amazon Web Services (AWS) WAF, API-Endpoints, Lambda, static S3 buckets, CloudFront, and DynamoDB to deliver content and application on a completely serverless architecture

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## **SQT-English-to-Spanish-Translator**

#### Flexible C# Spanish - English translation system

JacobFV/SQT-English-to-Spanish-Translator

#### \_\_\_\_\_

## **Sale Translator**

#### Basic C# Spanish - English translation system

#### Cookie Cutter CNC

## Full stack engineering project

Mar - May 2015

% jacobfv123.medium.com/cookie-cutter-cnc-923c68932ee6

- 36"×36" sheet metal cutter with server and Arduino client control systems:
- JacobFV/CookieControl
- JacobFV/Arduino-CookieControl
- Designed and developed C# .svg parser, toolpath scheduler, and optimizer, Arduino controller with serial protocol and electronics, and CNC machine with electrodischarge machining head.
- Presented on project in May 2015 and June 2016

## **Copyright Calculator**

## Scripted conversation bot to help students stay safe

JacobFV/Copyright-Calculator

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# CookieBaker 3D Printer Programmable 12×12 2D gantry

% jacobfvaldez.weebly.com/engineering

- Learned mechanical engineering basics
- Intended to make a 3D printer, but extruder never added
- Re-attempted project in October 2014 with design modifications

More work here.