

JACOB VALDEZ

Software Engineer

@ jacob.valdez@limboid.ai +1 469 968 9490 jacobfv.github.io
@JacobFValdez JacobFV in jacob-f-valdez

EMPLOYMENT

Software Engineer

Motio Inc

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 research group to evolve and test a flask-based statistical visualization tool CoWiz
- Developed full stack web server MLN-Dashboard using 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
- 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

June 2020 – Aug 2022 Arlington TX

GPA 3.6/4.0

A.A.S. in Mathematics

Navarro College

Sept 2014 – May 2018 Waxahachie TX

GPA 3.9/4.0; Dual-credit program; 85 hours taken

ACHIEVEMENTS

2022 Future Texas Business Legend Award Finalist

Texas Business Hall of Fame Spring 2022
for Limboid LLC business proposal

Paper accepted

Baltic DB&IS 2022 Spring 2022
for co-authoring ModViz: A Modular and 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

UTA CSE Dept Spring 2021
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.AI
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 Nov 2018

PROJECTS

The Agent Suite

Department-Specialized Autonomous Agents

📅 May 2023 – Present

🔗 [homepage](#)

- Stack: supabase, postgres, langchain, sqlmodel, pydantic, fastapi, draftbit, react-native
 - Teammates: Garrett Sheyan & Matt Patternostro
 - WIP. Source available on request.
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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
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MLN-Dashboard

Modular server for data visualization

📅 Oct 2021 – May 2022

🔗 [JacobFV/mln-dashboard](#)
🔗 [Presentation](#)

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

📅 June – Aug 2021

🔗 [JacobFV/20Questions](#)
🔗 [jacobfv.github.io/projects/20Q](#)

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

Dynamic time multi-graph neural network framework

📅 May 2021

🔗 [JacobFV/multigraph-nn](#)

- Stack: Python, tensorflow, keras
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DesparadosAEye

chatGPT before chatGPT (but nowhere near as good)

📅 Jan – May 2021

🔗 [kmosoti/DesparadosAEYE](#)

- Stack: Android, SQLite, Java, Kotlin, TFLite, BlenderBot
 - Organized team, general app architecture & development, and MLOps
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Stanford Open Datathon Group Project

Performed data science in 5-student international group

📅 Apr 2021

🔗 jacobfv.github.io/projects/2021_SODP

Home Internet Factory

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

📅 Apr 2020

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

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

📅 July 2018 – Apr 2019

- 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

SQT-English-to-Spanish-Translator

Flexible C# Spanish – English translation system

📅 Oct – Nov 2016

🔗 [JacobFV/SQT-English-to-Spanish-Translator](#)

Sale Translator

Basic C# Spanish – English translation system

📅 Oct – Nov 2015

🔗 [JacobFV/Sale](#)

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

📅 Sept 2014

🔗 [JacobFV/Copyright-Calculator](#)

CookieBaker 3D Printer

Programmable 12×12 2D gantry

📅 Mar – May 2013

🔗 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](#).