# JACOB VALDEZ

## **Machine Learning Engineer and Researcher**

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# **EDUCATION**

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

#### The University of Texas at Arlington

June 2020 - Present

GPA 3.7/4.0; graduate Aug 2022

### A.A.S. in Mathematics

#### **Navarro College**

m Sept 2014 - May 2018

GPA 3.9/4.0; 85 hours taken

# **EMPLOYMENT**

#### Developer

#### **ITLab**

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🛗 June 2021 - Present

 Collaborate with research group to develop and operate statistical visualization tool CoWiz

## Developer

#### **UTA Social Work**

🛗 June 2021 - Present

• Maintain and enhance information system for social work research

#### **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

# **PROJECTS**

#### Full Stack Artificial Intelligence

Heb 2019 - Present

- Active project to research and develop human-level artificial intelligence
- Ongoing research published at https://jacobfv.github.io/projects/full\_stack\_artificial\_intelligence/

#### DesparadosAEye

🛗 Jan - May 2021

- Project manager, general app developer, and ML engineer for a 5-person group developing open-ended Android chatbot
- App available at https://github.com/kmosoti/DesparadosAEYE

## Stanford Open Datathon Group Project

# **CERTIFICATIONS**

Google TensorFlow Developer Certification

#### **Google Developers**

DeepLearning.AI TensorFlow Developer

#### Coursera

DeepLearning Specialization by DeepLearning.Al

#### Coursera

## Sept 2020

AWS Certified Developer – Associate

#### **AWS**

AWS Certified SysOps Administrator – Associate

#### **AWS**

AWS Certified Solutions Architect – Associate

#### **AWS**

# **TEACHING**

Artificial Intelligence: Principle and Practice

## Independent

₩ Oct 2021

- Worked as data scientist in a 5-student international group analyzing sentiment and semantics of the COVID19 pandemic
- Personal contributions published at https://jacobfv.github.io/projects/2021\_SODP/

# Home Internet Factory

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- Internet connected prototyping machine hub
- Raspberry Pi 4 served as gateway to tabletop CNC router, 3D printer, two cameras, and 3.3V logic I/O auxiliary interfaces
- Published journey to develop and operate at https://medium.com/@jacobfv123/industrialautomation-homebba924a3b2f0

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## Workplace Surveillance System

- Employee phone detection computer vision system
- Client-side neural network programmed with tensorflow.js
- Demonstration to employer succeeded identifying employees on their phone, but employer not willing to pay to use
- Github repository JacobFV/Workplace-Surveillance-System

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## Big Blender Farm

🛗 July 2018 - April 2019

- Blender render farm web application; full stack
- 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 Spanish English translation system
- Programmed in C# with Visual Studio
- Formalized many more aspects of English Spanish translation
- Github repository JacobFV/SQT-English-to-Spanish-Translator

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#### Sale Translator

- Basic Spanish English translation system
- Programmed in C# with Visual Studio
- Implements formal language parsing and production system
- Github repository JacobFV/Sale

## Cookie Cutter CNC

Mar - May 2015

- 36"×36" sheet metal cutter with server and client control systems
- Full stack engineering project. Designed and developed C# .svg parser, toolpath scheduler, and optimizer, Arduino C controller with serial protocol and electronics, and CNC machine with electrodischarge machining head.
- Development journey published at https://jacobfv123.medium.com/cookie-cutter-cnc-923c68932ee6