# EZER PATLAN

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# **SUMMARY**

Ability to leverage scientific computational knowledge from the geo-seismic sphere to develop as a Machine Learning and Artificial Intelligence Engineer with precision and efficiency in Big Data analytic programming and Software Engineering. I am currently working toward my master's degree in computer science with a concentration in Data Science, and I have 4+ years of experience in SQL, Spark, and JavaScript, as well as 14+ years in Python and Linux. I have a proven ability to deliver responsive machine learning theory, optimization methods, deep learning, and large language models.

#### **EDUCATION**

## San Diego State University (SDSU)

May 2026

Master of Science (MS) in Computer Science

San Diego, CA

 Relevant Coursework: Data Mining, Algorithm Analysis Design, Algorithms, Machine Learning, Big Data Tools & Methods, Database Theory Implement, Principle & Techniques Data Science, Intro to Web App, Android/iPhone/iPad Mobile App, Human-Computer Interfaces, Data Structures, Object Oriented Programming, Software Engineering, Computer Architecture

# The University of Texas at El Paso (UTEP)

**July 2016** 

Doctor of Philosophy (PhD) in Geological Science

El Paso, TX

• Relevant Coursework: Selected Topics CS, Mathematical Physics, Intro to Computational Science

# The University of Texas at El Paso (UTEP)

May 2011

Master of Science (MS) in Geophysics

El Paso, TX

 Relevant Coursework: Digital Image Processing, Seismology, Geoscience Computer Applications, Advanced Seismology, Geophysical Inverse Theory, Digital Signal Processing, Numerical Solution Partial Differential Equation, Numerical Optimization

## The University of Texas at El Paso (UTEP)

**May 2008** 

Bachelor of Science (BS) in Geophysics

El Paso, TX

- **Relevant Coursework**: Discrete Math, Electromagnetics I, Thermal and Fluid Physics, Probability, Applied Analysis I, Analytical Mechanics I, Matrix Algebra, Modern Physics

#### **EXPERIENCE**

SDSU

May 2023 – Present

AI4Business Research Student

San Diego, CA

- Implemented explainable anomaly detection using a big medical database for tabular and **time-series signals** e.g., heartbeat, and COVID-19.
- Utilized large database queries, construction, transformer functions, and automated ETL processes utilizing **Python**, **SQL**, and **MongoDB**.
- Working with eBay 2024's University Machine Learning Competition: Build a large language model that can identify which vehicles are compatible with specific parts and accessories.

HP Inc. / KForce

Sept. 2021 – July 2024

Software QA Engineer

San Diego, CA

- Designed scalable platform solutions, translating business and product concepts into technical solutions.
- Experienced using **REST APIs** such as the **Postman** application that helps identify any defect on the connectivity side (Radio Frequency wireless) of the Android App called HP Smart App for printer devices.
- Experienced with Agile software development processes such as Jira.
- Integrated **GraphQL** into existing **REST API** infrastructure, enabling a **20%** reduction in API-related issues.

# **US Geological Survey**

July 2021 - Oct. 2022

Geophysicist post-doc research fellow

Menlo Park. CA

- Contributed scientific computing for large data sets including data, mining, data analysis, data visualization, and statistical methods.
- Applied signal processes (filtering, analysis, and optimization) for scientific analysis.
- Utilized PyQt6 to create an intuitive graphical interface (GUI), increasing user time on-site by 10%.

## WAIWT/Text3D | MongoDB, Python, NodeJS, HTML CSS, AWS Cloud Platform (GPU) | Tech Cadets 2024

- Leveraged normal-depth **Diffusion Models** to use CUDA AWS GPU to handle processing and highlight essential details for improved 3-dimensional richness.
- Implemented a back end for a fashion forecast website by authenticating accounts for Sign Up/Sing.

## GuardX | iOS, Swift, Firebase Google | SDSU Certification 2019

- Automated monthly crime status updates for any GPS location or address via data analysis and data mining of information from San Diego County police reports.
- Reduced time to upload reports to 10 seconds.

# Website for National Museum | HTML, CSS, PHP, JavaScript, jQuery | SDSU Certification 2019

- Implemented a five-page website with a 24-hour weather report, pop-up windows, and an animated calendar.
- Registered new subscribers and accessed weather feed through the integration of PHP, JavaScript, and jQuery.

## TECHNICAL CERTIFICATIONS

Oracle Cloud Infrastructure 2024 Generative AI Professional: Certified July 2024, Skills: LLM and Chatbot. AT&T 2024 Technology Academy: Certified July 2024, Skills: Cloud Computing, Agile, REST, and Machine Learning. Advanced Web and Mobile Application Certification: Certified May 2019. Skills: Swift, Java, HTML/CSS, and PHP.

#### TECHNICAL SKILLS

**Languages**: Python, JavaScript, Java, TypeScript, Swift, Java, C++, SQL, HTML/CSS, R, Bash, PHP, Matlab, jQuery **Frameworks**: React, Node.js, Angular, Flask, Linux/Unix

**Tools**: Oracle Cloud, AWS (EC2, IAM, Lambda), Postgres, Docker, MongoDB, GraphQL, Git, Jupyter, Postman, Snowflake **Python Libraries**: NumPy, Matplotlib, OpenCV, Pandas, Scikit-learn, PyQt6, Tensorflow, Pyspark, Pytorch, Yolov8

#### WORKSHOPS

Cybersecurity Course, CODEPATH\*ORG, September 2024

Mastering REST APIs: The Universal Integration Tool in AI and Beyond, Oracle, July 2024

Conversational AI: Harnessing Generative AI with Oracle Digital Assistant, Oracle, July 2024

Zero to Snowflake in 90 minutes, Snowflake, July 2024

Visual Analytics Powered by Snowflake and Tableau, Snowflake, July 2024

Advanced Web and Mobile Application Certification, Certified May 2019. Skills: Swift, Java, HTML/CSS, and PHP.

# **CLUB AND ACTIVITIES**

# Volunteer | Escondido, CA | Tu Vien Phap Vuong (Buddhist Temple)

May 2022 - Present

- Assisted a group of parents to re-model the outside of the temple such as carpentry, and iron welding.
- Participated in the decoration for the lunar year, Buddha's birthday, and the summer kids' program.
- Facilitated the needs of the children in the temple by setting up the tables, chairs, and utensils for their lunchtime every Saturday.

### Member | San Diego, CA | Association of Latino Professionals For America (ALPFA)

July 2024 - Present

- Registered as a San Diego chapter ALPFA.
- Participated in resume workshops, social activities, and the ALPFA Convention.

#### LANGUAGES

**Spanish:** Native (Written and Spoken)