

# JONATHAN KIM

915-474-8685 | [jon.kim.mj@gmail.com](mailto:jon.kim.mj@gmail.com) | 1298 Milan Ridge Drive, El Paso, Texas, 79912  
[linkedin.com/in/jonathan-kim-j1k3](https://www.linkedin.com/in/jonathan-kim-j1k3) | [github.com/jonkim13](https://github.com/jonkim13) | <https://jonathan-kim.netlify.app>

## Education

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

Expected: May 2026

Bachelor of Science in Computer Science; Dean's List 2023-2024; Honors Student

GPA: 3.74

Relevant Coursework: Object Oriented Programming, Automata, Computer Architecture I, Data Structures & Algorithms

## Experience

### The Ohio State University AI-EDGE Institute

May 2024 - July 2024

Generative AI Researcher

Columbus, Ohio

- Analyzed generative models (**GPT-2**, **VAEs**, **GANs**) to improve theoretical frameworks and algorithmic performance, utilizing **PyTorch** for implementation and testing.
- Optimized **GPT-2**'s text generation on **1 million tokens** of Shakespearean poems, implementing fine-tuning techniques in **PyTorch**, leading to **4% accuracy boost**.
- Developed expertise across **supervised**, **unsupervised**, **semi-supervised**, and **reinforcement learning**, applying **diffusion models** to enhance training outcomes and model robustness.

## Projects

### DUI Risk Radar (BorderHack) (2nd Place) | HTML/CSS, JavaScript, React, Firebase

September 2024

- Engineered a **React-Firebase** web app for real-time DUI risk visualization, supporting the United Nation's Goal 3.6 to reduce road accident deaths.
- Implemented **linear interpolation** for mock data generation, achieving a **70% improvement in simulation accuracy**.
- Created interactive DUI data visualizations using **Google Maps API**, integrating **Google Cloud Speech-to-Text** for real-time reporting functionality.

### Vocowbuary.courses (MLH HackWesTX) | HTML/CSS, JavaScript, React, Node.js, MongoDB

September 2024

- Created a **React-Node.js** web app for non-native speakers, achieving a **20% pronunciation improvement** based on **Google Gemini** feedback, and supporting real-time testing for 40+ users.
- Implemented a custom scheduling algorithm using **Node.js** and **MongoDB** to dynamically prioritize words, integrating user feedback and **Google Gemini** insights to enhance app accuracy.

### SnapMarket | HTML/CSS, JavaScript, React, Axios, Django, AI, ML

June 2024 – July 2024

- Developed a **React-Django** web app enabling video screenshot-based product search, displaying product details.
- Integrated **Google Cloud Vision API** and **Serp API**, improving product search accuracy by **15%** and enabling precise image-based recognition.
- Streamlined API data retrieval by implementing efficient data handling, displaying content dynamically, scroll animations, content hiding, hover effects, and responsive design for various screen sizes.

### Poké Generator | Pytorch, AI, ML, Python, Image Generation

May 2024 - July 2024

- Led a team of 3 to refine **Stable Diffusion 2**, achieving a **40% improvement** in generating realistic Pokémon-like images from text.
- Processed five datasets (**300,000 data points**) from Kaggle, GitHub, Hugging Face, and PokéAPI, leveraging **Python** and **Pandas** for data preparation and management.
- Built a **data pipeline** and applied **LoRA fine-tuning**, significantly improving image quality in the generation process.

## Technical Skills

Programming Languages: Python, Java, JavaScript, SQL

Technologies: HTML/CSS, Git, React, Django, Flask, Firebase, Docker, MongoDB, Node.js, Axios, PyTorch, Pandas

## Leadership / Extracurricular

### CIA Analytical Mentorship Program

September 2024 - Present

Analytic Mentee

UTEP

- Enhanced analytic and briefing skills through CIA mentorship, researching AI applications in the Chinese military.

### Free and Open-Source Club

January 2024 – Present

Secretary

UTEP

- Improved club operations and outreach, **increasing attendance by 20%** and **mentoring 15+ students** through **Flask** workshops and open-source tools.