# Kaden Truett Bilyeu

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Computer science junior at the University of Colorado Colorado Springs passionate in applying my skills on AI/ML, LLMs, data science, and NER/NLP into software for real-world applications. Eligible for security clearance, U.S. Citizen.

### **Education**

#### **University of Colorado Colorado Springs**

(08/2022-05/2026)

Bachelor of Science in Computer Science, ABET Accreditation, Cybersecurity Focus Minor in Japanese GPA 3.64/4.00

### **Skills**

- Programming Languages: Python, Java, C, R, C++, JavaScript, Typescript, Go, SQL
- Database Management: MySQL, Oracle SQL, PL/SQL, SQLite, Data Backup and Recovery, Database Security
- Tools & Frameworks: React, Docker, Git, GitHub, AWS, Cloudflare, FastAPI, Flask, Django, Vite, Linux, Unix, Cloudflare, NumPy, Keras, PyTorch, TensorFlow, Pandas, Scikit-learn, Plotly, Dash, NetworkX, SpaCy, Gradio, Fly.io
- Methods: Agile software development, OOP, Debugging, Asynchronous design, CI/CD, API Integration

# **Work Experience**

#### **Network Goods Institute, Software Engineering Intern**

(11/2024 - Present)

- Spearheaded the implementation of a major production feature, "epistemic leverage," and collaborated in designing production mechanisms and workflows that optimized system performance and streamlined deployment processes by 20%
- Developed key functionalities: User Profiles, Leaderboards, Graph URLs, and UX improvements using Supabase & Next.js

OSCorp, AI/ML Intern (09/2024 - 11-2024)

- Designed new AI/ML systems for space defense using Python, C++, TensorFlow, and PyTorch, focusing on enhancing autonomy and real-time decision-making capabilities
- Analyzed extensive space data to create new algorithms while leveraging machine learning techniques and data analysis tools to enhance U.S. space domain awareness efforts by improving sensor search and reacquisition capabilities

#### **Network Goods Institute, Software Engineering Intern**

(07/2024 - 09/2024)

- Developed a Python/Dash Web GUI to simulate an index-wallet-powered economy, integrating NetworkX, Plotly, scikit-learn, NumPy, and Pandas for interactive data visualization.
- Enhanced communication skills by working closely with stakeholders to translate feedback into improved simulation features/UX

## **UCCS**, Teaching Assistant

(01/2024 - Present)

• Tutored students in R, C, data analysis, and Agile software development through 1-on-1 sessions and online communication

#### **Projects**

# Full Stack Company Website (Kakusui LLC) (https://kakusui.org)

(04/2024 - Present)

- Founded a Translation as a Service business model that allows customers to create customizable language translations easily
- Designed a scalable translation solution with a React and Vite frontend and a FastAPI backend, adaptable to new AI models
- Delivered a cost-effective website with hosting costs under 15 cents per month by efficiently using hosting services

#### Japanese-English Preprocessor and Translator (Kudasai) (https://github.com/bikatr7/kudasai)

(01/2023 - Present)

- Constructed a specialized Japanese translator application, built to streamline and deliver state-of-the-art light novel translations
- Integrated ChatGPT, Gemini, Anthropic, and DeepL APIs with a Python WebGUI using Gradio, leveraging SpaCy for NER/NLP
- Improved translation speed from 6 hours to 5 minutes by automating and revolutionizing an existing manual process

#### **Activities**

Association of Computing Machinery (ACM) Officer, Secretary-Treasurer

(10/2024 - Present)

• Backdrop Build V3 Finalist, a 4-week hackathon focusing on launching projects in frontier tech areas

(03/2024)