Kaden 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
Minor in Japanese
GPA 3.56/4.00

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
- **Technologies & 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

OSCorp, AI/ML Intern **(09/2024 - Present)**

- 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
- Enhanced U.S. space domain awareness efforts by improving sensor search and reacquisition capabilities

Network Goods Institute, Software Engineering Intern **(07/2024 - 09/2024)**

- Engineered a Web Gui using Python and Dash to demonstrate an index-wallet-powered economy simulation
- Integrated NetworkX, Plotly, scikit-learn, NumPy, Pandas and other data visualization and manipulation libraries to create interactive and informative displays
- Enhanced communication skills by working closely with stakeholders to translate feedback into improved simulation features and a better user experience

UCCS, Teaching Assistant **(01/2024 - Present)**

- Instructed students in R, data analysis, C, Git, GitHub, & the Agile methodology through 1-on-1 sessions and online communication
- Created and delivered supplementary learning materials and resources to reinforce complex programming concepts and statistical methods
- Improved student performance in programming efficiency and code quality through targeted assistance

Projects

Full Stack Company Website (Kakusui LLC) (https://kakusui.org) **(04/2024 - Present)**
- Entrepreneured 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
- Implemented endpoint security, rate-limit protection, and abuse prevention methods from scratch to enhance security

Japanese-English Preprocessor and Translator (Kudasai) https://huggingface.co/spaces/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
- Worked directly with the client to gather feedback, iterating on the application based on user insights, which enhanced both the product and my ability to adapt to changing requirements

Activities
- **Association of Computing Machinery (ACM) Officer, Secretary-Treasurer** **(10/2023 - Present)**
- **Finalist in Backdrop Build V3, a 4-week hackathon focusing on building & launching projects in frontier tech areas (03/24)**