

## KAI HUESKE-VAN CEYLON

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### PROFESSIONAL EXPERIENCE

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**Workday**, Boulder, CO

September 2022 - Present

*Associate Machine Learning Engineer*

- Leveraged natural language processing and ML in Python & Torch to provide an accessible chatbot interface for Workday's end-users
- Single-handedly planned & executed a revamp of our Named Entity Recognition (NER) machine learning system, elevating end-user performance and enhancing our capacity to anonymize sensitive data for safe use
- Performed exploratory research to evaluate GPT-4/LLMs as a tool for expanding product functionality from both a technical as well as a legal/data compliance perspective, and effectively communicated our findings to non-technical stakeholders
- Implemented bias evaluation within our pipeline, empowering the team to constantly improve the fairness of our models
- Upgraded ML training pipeline to reduce training failures and enable consistent model delivery, assuaging a major pain point for our team
- Helped make our models available to other teams within Workday, handling multiple data flows & constraints to improve user experience across multiple products

**CATFund**, Boulder, CO

May 2021 - Present

*Fintech Startup ML Developer*

- Built financial trading algorithms using ML and data science techniques in a self-directed startup work environment
- Independently designed, implemented, and maintained a custom algorithmic trading framework, enabling our team to rapidly develop, test, and deploy trading strategies

### SKILLS

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- Experienced with ML theory/architectures like LLMs, pretrained models, transformers, and RNNs, as well as practical frameworks like PyTorch, Scikit-learn, and the Transformers library
- Experienced at training & deploying models using scalable cloud MLOps tools like AWS S3 and EC2, Airflow, Kubernetes, and Docker
- Strong skills in Statistics, Linear Algebra, Data Science, and Multivariable Calculus
- Experienced with unsupervised learning methods like PCA & clustering
- Skilled at implementing & using SDE best practices for quality code like continuous integration/deployment, test-driven development, OO paradigms, and version control systems
- Proficient in C/C++, Python, Java, Scala, HTML/CSS, NodeJS, PostgreSQL
- Familiar with Agile workflows, Jira, full stack and team software development

### EDUCATION

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**University of Colorado at Boulder**

May 2022

Bachelor of Science in Computer Science, with a focus in Artificial Intelligence and Machine Learning

Member of the Engineering Honors Program

3.84 GPA

#### **Relevant Projects:**

- **NLP COPA task** - a team machine learning project in natural language processing. We fine-tuned pretrained language models like RoBERTa and DeBERTa to perform the SuperGLUE COPA (choice of plausible alternatives) task. The models were trained in Python using PyTorch and the Transformers library, as well as GPU acceleration.
- **Nile Data Marketplace** - a team entrepreneurial project. We built a startup to empower data sharing, connecting providers and consumers of data using a web3 framework. We were responsible for all phases of the business—from initial ideation, to developing a business model & building the app itself, to finally presenting our product & pitch at CU Boulder's New Venture Challenge.

#### **Relevant Courses:**

- Natural Language Processing, Advanced Data Science, Machine Learning, Software Development, Object-oriented Analysis and Design, Principles of Programming Languages, Entrepreneurial Projects in CS, Introduction to Robotics, and Introduction to AI