

KENTARO VADNEY

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EDUCATION

University of California, Berkeley

Aug 2019 – May 2023

B.A., Computer Science

REGENTS' & CHANCELLOR'S SCHOLAR

NATIVE JAPANESE SPEAKER

Research Focus: Japanese Linguistics & Translation | NLP | Distributed Systems

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, SQL

NLP & Linguistics: Japanese Phonetics & Phonology, Morphological Analysis, Text Normalization, Translation & Localization, Dialectology, Sociolinguistics, Kuzushi-jī Analysis

Frameworks: PyTorch, FastAPI, React, Node.js, Flask, Django, Angular

Cloud & Databases: AWS, Docker, Kubernetes, Terraform, PostgreSQL, MySQL, MongoDB

LINGUISTIC & RESEARCH EXPERIENCE

Japanese Linguistics Researcher & Translator @ UC Berkeley Bancroft Library

Nov 2019 – May 2021

- Analyzed and transcribed 86-page historical Japanese scrapbook in cursive kuzushi-jī, identifying dialectal variations and temporal linguistic shifts using phonetics and phonology expertise
- Developed text normalization protocols converting archaic orthography to modern Japanese (gendai hyōki), creating metadata schemas for lexical entries, prosodic features, and dialectal markers
- Performed morphological analysis and part-of-speech identification with homograph disambiguation, establishing classification systems for honorifics, particles, and conjugations
- Managed lexical and phrasal transcriptions with kanji readings, hiragana transliterations, vocalized readings (yomikudashi), and Chinese pinyin for kanbun texts
- Designed transcription quality evaluation experiments, cross-referencing kuzushi-jī dictionaries and collaborating with linguistics faculty to validate interpretations

Technical Translator & Localization Specialist @ Genero Inc

May 2020 – Sep 2020

Produced bilingual technical documentation translating marketing automation specifications, API documentation, and Drupal 9 articles between English and Japanese. Localized pitch deck presentations adapting content for Japanese business audiences while maintaining technical accuracy across marketing and technical domains, applying prescriptive writing conventions.

AI Labor Market Research Assistant @ UC Berkeley Haas School of Business

Jan 2021 – Jun 2021

Conducted quantitative analysis using Python for NLP-based classification and entity extraction from employment datasets. Developed automated text preprocessing pipelines for sentiment analysis and skills identification in job descriptions.

SOFTWARE ENGINEERING EXPERIENCE

Full Stack Software Engineer @ Centigrade

Apr 2025 – Aug 2025

- Created NLP-powered AI search and document indexing system using AWS Kendra with Python, implementing semantic search and automated text summarization
- Led FastAPI backend development with optimized database queries supporting 100 transactions/month and redesigned React.js/Tailwind frontend reducing page load time by 50%

Founding Full Stack Software Engineer @ CarbonSustain

May 2024 – Dec 2024

Led architecture and development of blockchain-based data system from prototype to MVP, building Node.js backend with FastAPI integrations. Integrated Angular/TypeScript frontend with PostgreSQL server and designed AWS infrastructure (EC2, S3, CloudFront, Terraform) to support production deployment.

R&D Software Engineer @ Belden

Jul 2023 – May 2024

Developed LLM-based tools and container ingress features with Python, Java, REST APIs, and Kubernetes for cybersecurity applications. Re-designed AI models to expand data coverage and optimized EDA workflows processing 200+ GB datasets using Dask and machine learning frameworks.

Distributed Systems Researcher @ UC Berkeley RISE Lab

Aug 2021 – Dec 2021

Led 5-person research team analyzing distributed consensus protocols, co-authoring published paper on communication efficiency optimization using Python simulation of replicated state machine traffic.

Full Stack Intern @ Astar Network

May 2021 – Aug 2021

Published bilingual technical documentation in English and Japanese for blockchain developer tools, demonstrating technical translation expertise. Built Discord bot integrated with blockchain APIs using Node.js and TypeScript.