

# KENTARO VADNEY

Alameda, CA, 94502 | (424) 533-9384 | kentarovadney@gmail.com | [LinkedIn](#) | [GitHub](#)

## 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-ji 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-ji, identifying dialectal variations and temporal linguistic shifts using phonetics and phonology expertise
- Developed text normalization protocols converting archaic orthography to modern Japanese (gendai hyouki), 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-ji 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. Redesigned 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.