# Kent Vuong Tran

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## EDUCATION

**California State University, Fullerton**                    **Aug 2022 – May 2026**

**Bachelor of Science in Computer Science | Minor in Data Science**

Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Machine Learning, Data Science, Applied Statistics, Artificial Intelligence, Database Application, Modern Software Deployment, Software Engineering, Backend & Frontend Engineering

## SKILLS

**Languages:** Python, C/C++, R, SQL, JavaScript
**Web Development:** React, Node.js, Express, HTML, CSS
**AI/DS:** Scikit-learn, NumPy, Pandas, Matplotlib, SciPy, PyTorch, TensorFlow
**Cloud & Infrastructure:** AWS, Docker, Firebase, Terraform
**Platforms & Tooling:** Git, Linux, GitHub Actions, MongoDB

## Experience

**Machine Learning Research Intern for Smart Alert System Lab| California State University, Fullerton**          **Aug 2024 – Present**

- Developed detection models using Decision Tree classifiers trained on 300K+ multi-sensor data points, achieving 90% accuracy in room presence detection
- Collaborated with engineering intern to integrate ultrasonic, vibration, and sound sensors on Arduino, enabling real-time data collection via Bluetooth

**SoCal Data Science Fellowship | University of California, Irvine**          **Jan 2024 – Aug 2024**

- Classified Alzheimer's and Mild Cognitive Impairment patients using Random Forest, Logistic Regression, and SVM on 45K patient records from NACC, achieving 80-90% model accuracy
- Presented findings to 50+ attendees at NSF-supported research symposium, identifying everyday behaviors (paying bills, remembering dates) as accessible early indicators of Alzheimer's

**AMD & NVDA: Pair Trading Research Under Dr. Bein | California State University, Fullerton**          **May 2023 – Aug 2023**

- Built pair trading pipeline using Python (Pandas, statsmodels) to analyze 250+ daily price points from Yahoo Finance, applying correlation and cointegration testing to generate buy/sell signals
- Presented algorithmic trading strategy to 100+ students in ASSURE-US research program

## PROJECTS

**AWS Document Storage w/ AI Summarizer**

- Architected serverless document storage backend by deploying 7 Lambda functions with 7 REST API endpoints, Cognito JWT auth on all methods, least-privilege IAM roles scoped to DynamoDB/S3, and CloudFront HTTPS distribution via modular CloudFormation templates
- Implemented secure file sharing with S3 presigned URLs and configurable expirations, API rate limiting for usage tracking, CloudWatch dashboards with error/latency alarms, and AI document querying through AWS Bedrock MCP integration

**unREEL Engine (Video Editor Tool)**

- Achieved 3rd place at Cerebral LA Hacks by building an AI video editing tool that reduces manual editing time through prompt-based scene search and auto-clip assembly
- Developed indexing pipeline using Twelve Labs API (Marengo, Pegasus) for scene tagging and natural language search, with MeloTTS for voice cloning

**PRAMS | Infant Mortality Prediction**

- Predicted infant mortality with 90% accuracy using Random Forest on 300K CDC patient records, publishing findings at IEEE International Conference on Circuits, Systems, and Communication
- Built end-to-end data pipeline with cleaning, preprocessing, and feature engineering across 40+ health and demographic variables

## LEADERSHIP

**Association for Computing Machinery Member | Fullyhacks Operation Organizer**          **Aug 2022 – Present**

- Supported event logistics for 2 annual Fullyhacks hackathons (2024–2025), assisting with setup, equipment, and hacker navigation for 200–234 participants
- Won 1st place among 300+ participants at Fullyhacks 2023 as a first-time hacker