Nikolas Belle

+1-714-856-9061 • nbelle@ucsb.edu • www.linkedin.com/in/nikolas-belle-723080188 • nikolasbelle.com

EDUCATION

University of California, Santa Barbara
M.S. in Electrical & Computer Engineering, Machine Learning & Computer Architecture Focus, 3.9/4.0 GPA — Jun 2026
B.S. in Computer Engineering, Machine Learning & System Software Architecture Focus, 3.9/4.0 GPA — Jun 2025
Engineering Honors Scholar, Technology Management Certificate, New Venture Program, Men's Club Soccer

EXPERIENCE

AI Research Engineer - ChipAgents, San Jose, CA — Jan 2026 – Present
Building deep learning solutions for optimizing power, performance, and area of a chip. By surfacing critical decision-making information much faster than existing tools, this work enables humans and agents iterate faster to meet tape-out deadlines.

AI Research Engineer - Barcelona Supercomputing Center, Barcelona, Spain — Oct 2025 – Jan 2026
Co-created an agents-for-chip-design effort; built multi-agent systems for front-end RTL tasks and deployed a system for rapid agent & benchmark development and progress tracking, bridging the knowledge barrier between AI and hardware teams.

Graduate Student Researcher - NLP Group, UCSB, Santa Barbara, CA — Dec 2024 – June 2026
Research self-evolving multi-agent systems that spawn, evaluate, and refine domain-specific LLM agents over repeated experiment cycles to overcome the limitations of a single-agent architecture's long-term strategy formulation and execution.

Software & Machine Learning Engineer - Quantum Energy Company, Santa Barbara, CA — Sep 2024 – Sep 2025
Built core software infrastructure for an AI-driven clean-energy analytics platform, designing robust data flows and systems that deliver decision support for existing and proposed energy projects in a simple and intuitive way.

Technical Co-Founder - TaxAlpha, Orange County, CA — Sep 2024 – Present
Built the software platform serving a fintech product built on published research in tax-efficient retirement and withdrawal strategies to deliver a seamless experience to current and future customers.

Software Engineer Intern - Pacific Life, Newport Beach, CA — Jun – Sep 2024
Designed and implemented a modular document validation architecture that reduced a 90-hour QA workflow to seconds, improving scalability and enabling future integration with new AI-based tooling.

Machine Learning Consultant - Rothman Lab, UCSB, Santa Barbara, CA — Mar – Oct 2024
Built a gene-prediction pipeline for tardigrade genomics research. By using ML to annotate tardigrade genomes from RNA-seq and protein evidence, we aimed to uncover the mechanisms behind their extremotolerance.

PUBLICATIONS AND PROJECTS

poRTLe - Portable Unified RTL Evaluation — Oct 2025 – Jan 2026
Co-developed poRTLe, a portable evaluation framework for RTL agents that bridges hardware & AI teams to create informative tasks, compare agent variants, and track benchmark progress acros experiments. Co-authored, under review.

Agents of Change - Self-Evolving LLM Agents for Strategic Planning — Jan – May 2025
Built a continual-learning multi-agent system that autonomously discovers environment dynamics and iteratively improves strategy to outperform the strongest online Catan bots. Co-authored.

Political Bias Evaluation Framework for Multilingual LLMs — Feb – Mar 2025
Developed a model agnostic evaluation framework for multilingual LLM bias with structured and generative prompting; found stance-flipping across language pairs and won bronze in Cohere's Expedition Aya 2025.

GauchoSat - Nano Satellite Senior Capstone Project — Sep 2024 – Jun 2025
Project manager and software lead for UCSB's first CubeSat, used to collect real-time solar cell performance data from space. Built the command & control subsystem during a 9 month design, development, & testing process.

Encrypted Video Classifier - Fingerprinting Streamed Videos Through Burst Characteristics — Oct – Dec 2023
Trained CNN and random-forest models to fingerprint streamed videos through flow-level network trace, achieving 94% accuracy and demonstrating privacy leakage from encrypted traffic. Co-authored.

HONORS AND RECOGNITIONS

Graduate Spotlight, University of California, Santa Barbara — Jun 2025
Computer Engineering Senior Spotlight, University of California, Santa Barbara — Apr 2025
Harold Frank Scholarship Recipient, UCSB Department of Technology Management — Mar 2025
College of Engineering Dean's Honors List, University of California, Santa Barbara — Winter, Spring, Fall, 2022 – 2025
Eagle Scout, Boy Scouts of America — Feb 2021

SKILLS

Technical: *Languages:* Python, C++, C, SQL. *AI/ML:* PyTorch, vLLM, SGLang, LangGraph, scikit-learn, TensorFlow, LLM agent harness development, deep learning, benchmark development, data & evaluation pipelines, experiment design.
Languages: English (native), German (native), Spanish (basic)

INTERESTS

Soccer, Mountain Biking, Music, Guitar, Surfing