

Clement Boiteux

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EDUCATION

University of California, Santa Barbara

Santa Barbara, CA

Bachelor of Science, Computer Engineering

Jun 2027

Activities: Data Science UCSB, Engineering Student Council, SB Hacks

EXPERIENCE

Junior Software Development Engineer, Amazon

Jun 2025 - Present

- Scaled Classic Alexa weather widget microservice in Java to support requests for over 5 million users worldwide.
- Owned the integration of Alexa+ LLM bar chart visualization support for over 15 million customers worldwide.
- Delivered backend logic for end-to-end Prime Video live sports widget experience to 10 million Alexa+ customers.
- Designed an AWS CloudWatch log filtering backend, saving the AGI Info Team \$4M in logging costs per month.
- Implemented batch API processing for Alexa+ Homecard content sourcing, reducing over 50,000 TPS to downstream.

Technical Development Lead, UCSB Data Science Club

Nov 2023 - Present

- Developed and taught hands-on Deep Learning, NLP, and Computer Vision workshops to over 500 students.
- Orchestrated the annual Data Science Project Series, leading 500+ members to build 30+ socially impactful projects.
- Automated a Google Apps Script Gmail integration to save 50+ hours of annual payment review for membership.

AI Student Developer Advocate, Intel Corporation

Apr 2024 - Oct 2024

- Built an OpenVINO accelerated vision language model inference engine for 100+ student ambassadors worldwide.
- Improved deep learning inference by 50% using OpenMP, MPI, OpenVINO, and Intel Extension for PyTorch.
- Utilized MPI and OpenMP to offload computation to Intel GPUs, saving 2 hours per training epoch.

PROJECTS

MoodMap

July 2026

- Designed an end-to-end multimodal 3D SLAM web app that proactively recommends users to try new places nearby.
- Ported PixArt-Sigma-XL hero image generation onto AMD MI300X ROCm GPUs, saving 2 hours per run.
- Integrated OpenStreetMap, Ticketmaster API, and Three.js 3D map to serve hero image visuals and user directions.

YOLO26 Real-Time Scooter Pathfinder

May 2026

- Built a real-time scooter pathfinding guidance software with Python, Ultralytics YOLO26, and OpenCV.
- Detected 100+ path obstacles dynamically in 3D to estimate optimal kinematic movement based on path risk.
- Designed an 83% accurate telemetry suite using OpenCV and OpenTelemetry API with 20 ms latency.

LingoLM

Nov 2025 - Present

- Deployed and scaled an LLM-assisted language learning vocabulary app led by Georgia Tech linguistics researchers.
- Integrated AWS Lambda vocabulary card generation function with API Gateway to support 100,000 unique words.
- Designed JSON payload caching with AWS ElastiCache, reducing Lambda invocations by 20% per user.

FacEmotion

Jan 2024 - May 2024

- Led a group of 3 to win **1st place** out of 53 teams at the annual Data Science UCSB Project Showcase Series.
- Utilized PyTorch, OpenCV, and Gemini to create a computer vision model to improve the mood of 50 students.
- Built a convolutional neural network using PyTorch and NumPy, reaching 87% accuracy after 100 epochs of training.

SKILLS

- **Programming Languages:** Python, Java, C++, JavaScript, TypeScript
- **Technologies:** SDLC, Software Architecture, DevOps, Linux, Docker, Git, Next.js, Express.js, FastAPI, MongoDB, AWS: Lambda, CloudWatch, DynamoDB, ECS, S3, CI/CD, Customer-Focused, Ownership, Operational Efficiency
- **Coursework:** Data Structures & Algorithms, Object-Oriented Design, Advanced Applications Programming, Parallel Computing, Computer Networks, Machine Learning, Artificial Intelligence, Computer Vision, Image Processing