

Chase Phung

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EDUCATION

University of California, Irvine

Computer Science, B.S.

- GPA: 3.84

Irvine, CA

Expected Jun. 2029

EXPERIENCE

Software Engineer Intern | Python, React, Next.js, PostgreSQL, Drizzle ORM

Jun. 2026 - Present

Ease, Inc. | Ease IQ team

Irvine, CA

- Re-architected a 3-camera label-verification pipeline, replacing continuous recording, video stitching, and LLM calls with a detection-triggered OCR system with edge-device controller logic, cutting compute time by ~80%.
- Shipped a fully-audited, multi-tenant user-impersonation system letting platform admins securely act as any user for support; implemented defense-in-depth authorization with a cross-tenant Postgres audit trail.
- Fine-tuned a YOLO11 object detection model to detect PPE non-conformance at manufacturing workstations, achieving a 19% decrease in false-positive detections and a 13% increase in mAP50-95.

PROJECTS

Pelennor | Python, TypeScript, FastAPI, React, Next.js, React Native, PostgreSQL

Apr. 2026 - May 2026

- Architected an offline-first incident management platform for volunteer fire departments with sync engine and conflict resolution, multi-tenant auth, and a transcription pipeline that structures NERIS-ready incident reports.
- Designed a mobile app with ElevenLabs and Gemini APIs to transcribe firefighter voice memos and structure them into shift-handoff records with multipart audio upload, offline persistence, and email-based delivery.

DownStream | React, TypeScript, AWS

Apr. 2026

- Won Best AI for Environmental Impact at UCI AWS Cloud Hacks 2026; built a real-time chemical spill propagation simulator on the Mississippi River, delivering cost and mitigation insights for emergency managers.
- Implemented budget-constrained mitigation options with spill-type-aware effectiveness logic, anchored to FEMA HMGP cost benchmarks from 597 federal projects.

Property Risk Intelligence | React, Next.js, FastAPI, Python, SQLite

Mar. 2026

- Developed an OCR-based document analysis system to identify inconsistencies in property underwriting workflows, targeting risk detection in tax, title, and financial documents; Built in 36-hours for IrvineHacks.

TECHNICAL SKILLS

Languages: Python, TypeScript, JavaScript, HTML/CSS, SQL

Frameworks: React, Next.js, React Native, Tailwind CSS, FastAPI

Databases & Cloud: PostgreSQL, Drizzle ORM, SQLAlchemy, Neon, AWS, Google Cloud

Developer Tools: Git, Docker, Expo, Vercel, Railway, GitHub

LEADERSHIP

Director of External Affairs

Jun. 2026 - Present

Sigma Eta Pi — UCI's premier entrepreneurship co-ed fraternity

Irvine, CA

Learning Assistant | ICS 6B: Boolean Logic and Discrete Structures

Mar. 2026 - Jun. 2026

University of California, Irvine

Irvine, CA

- Led 3 midterm review sessions, coordinating a team of 5 Learning Assistants and accumulating over 250 views across recordings; deconstructed propositional logic, proofs, set theory, and boolean functions step-by-step.

CERTIFICATIONS

AWS Certified Cloud Practitioner

Jan. 2026