

Chamroeun Hongleng

Software engineering student building web and data systems in TypeScript and Python — with applied-ML work in Khmer speech and field-tested product judgment.

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EDUCATION

American University of Phnom Penh — B.S. Information Technology Management Oct 2025 – present

— 100% bachelor's-degree scholarship as second-place laureate in mathematics (rector-signed certificate, 30 Apr 2025).

Fort Hays State University — B.S. Computer Science Oct 2025 – present

— Studied through the accredited AUPP–FHSU dual-degree partnership, alongside the ITM degree.

Institute of Foreign Languages, RUPP — B.A. English for Work Skills Jan 2026 – present

— 100% four-year scholarship from Cambodia's Ministry of Justice on a Grade A national Bac II result (2025) — one of twenty named recipients.

— Declared direction: English for International Business major (Year IV).

SELECTED PROJECTS

Kaskor ASR — Khmer speech recognition (sole builder · public repo + weights) 2026 – present

- Public Whisper-small fine-tuning pipeline for Khmer: 11 scripts from raw-audio inspection through training, evaluation, export, and a pip-installable transcription CLI (raw audio private).
- Best checkpoint 17.48% character error rate on the project's held-out split (self-reported; 86,550 training samples, speaker-stratified so no speaker crosses splits).
- Evaluation designed around Khmer script: character-level metrics, because space-free script makes word-level ones misleading. Weights public on Hugging Face.

PhsarOS — operations platform for Cambodian SMEs (deployed) 2026 – present

- Point of sale, inventory, customers, and expenses on one screen for small shops, cafés, and restaurants — multi-tenant Next.js, Prisma, Postgres.

Chomkar Decision Grid — auditable farm-lot decision engine (public repo) 2026 – present

- Deterministic engine assembling smallholder farm lots with human-approval gates: 62 unit tests, CI, bilingual Khmer/English audit reports — synthetic data by design.

Chomkar OrderLoop — buyer-first agritech coordination (team project) 2026 – present

- Runner-Up (Top 2), Turing Hackathon Cycle 10 (Techo Startup Center), Market Access for Farmers track.
- Ran the interview design and analysis for structured field research with ~30 bok choy farmers in Kang Meas, Kampong Cham; next step is one documented recurring-buyer pilot.

Bilingual LMS — learning management walkthrough prototype (sole builder) 2026

- English/Khmer course delivery, assessment, and academic analytics across teacher, student, and administrator roles — deployed as a public clickable prototype on sample data.

EXPERIENCE & LEADERSHIP

CHNAI LAB — Technology strategy & business 2026 – present

- Product direction, applied-ML planning, field validation, and evidence standards in a six-member student studio, working most closely with one teammate on Cambodia-first product experiments.

- Lead a professional reading circle governed by a 42-page handbook I wrote and maintain — constitution, reading method, AI-use policy, working templates, and a twelve-month pipeline. Leadership rotates through weekly offices; progress is measured by member output, not pages read.

Bilingual mathematics titles — Author & editor, CHNAI LAB · Phnom Penh

2026

- Wrote and self-published six bilingual English–Khmer mathematics titles (First Editions, ~1,780 pages): Grade 6 and Grade 7 sets of a dictionary, an exercise book (595 and 572 original questions), and full worked-solution answer books.

CIMOC 2025 — Volunteer, competition organization & examination writing

2025

- Organized the national final at SCIA Phnom Penh and wrote the Grade 11 examination paper.

AWARDS & DISTINCTIONS

- National runner-up in mathematics, Ministry of Education national examination (2025); first in Grade 12 mathematics at school, district, and provincial level, Kampong Cham.
- Silver Award, Hong Kong International Mathematical Olympiad 2024, Senior Secondary group — named on the organizer's official results list.
- Grade A, national Bac II examination, Cambodia (2025).
- Second-place mathematics laureate — basis of the AUPP 100% scholarship (2025).
- 1st place, Angkor Mathematics Competition 2024 (Global Round) and AMC Mathematics Competition (2024).
- Runner-Up (Top 2), Turing Hackathon Cycle 10 (2026) · medals across SEAMO, SASMO, Copernicus, PhIMO, and Math Kangaroo Cambodia.

SKILLS & WORKING STYLE

Software: TypeScript, Vue/Nuxt, Next.js, Python, Prisma/Postgres, schema-validated content systems, unit testing, CI · **ML & speech:** PyTorch, Hugging Face, Whisper fine-tuning, dataset design, evaluation & error analysis · **Business & governance:** field research, unit economics, contracts/terms/policy coursework · **Languages:** Khmer, English.

I work AI-natively: AI tools support research, drafting, and implementation; decisions, evidence standards, and anything that ships stay under my review. Every claim on my portfolio carries an evidence label — chamroeunhongleng.me.