FREDERICO MACHADO

Rio de Janeiro, Brazil | English and Brazilian Portuguese

English With Flow

AI & Data Portfolio | An English educator and engineering student with 15+ years in teaching, including assessment design and online training. UFRJ language degree, Cambridge CELTA and C1 Advanced.

Selected projects

AI TRAINING

Bilingual English tutor

Trained an intent classifier for lesson plans, audio roleplay, grammar feedback and drills. Teaching outputs use curated examples.

23/24 correct on an authored holdout

DATA ANALYSIS

Cohort and renewal KPIs

Used SQL to reconcile learner, package and teaching commitments. Compared seven and eight renewals.

R$14,000-16,000 modeled renewal value

DATA SCIENCE

Capacity simulation

Simulated renewal and rescheduling scenarios to estimate how many booking slots to reserve.

29 slots/week at base-case P90

DATA ENGINEERING

Validated contract ledger

Built a Python/SQLite pipeline with data contracts, aggregate reconciliation and a failure-recovery test.

45 synthetic rows across two scenarios

One year at English With Flow

R$44,000-R$46,000

Modeled gross contract value

15	22-23	1,056-1,104
unique learners	packages contracted	lessons contracted

Basis: 48 lessons per package, seven or eight renewals, and R$2,000 assumed per package. Contract value and lesson commitments are modeled from owner-supplied aggregates.

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