Emilia Psacharopoulos

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Software engineer with a background in mathematical modeling and **decision-support systems**, combined with experience **owning and shipping** full-stack production features at an early-stage startup. Now seeking roles where that engineering foundation meets mission-driven work: building systems that model, optimize, or simulate **real-world problems at scale**.

EXPERIENCE

Product Engineer   Dec 2025 – Mar 2026
Basis AI, New York, NY

Technical owner of full-stack development for key product features from design to production at a start-up.

- Became **technical owner** for the reconciliations product area within two months when the previous lead departed, taking full responsibility for feature development and production releases.
- Expanded the platform to support custom-month reconciliation cadences (e.g., quarterly closes) by **leading** product scoping, technical design and implementation, QA coordination, and production rollout.
- Stabilized and completed a partially implemented reconciliation settings editor, **diagnosing and resolving** blocking issues across frontend and backend logic and driving the feature through QA to production.
- Designed and shipped a 12-month planning visibility feature **from zero to production**; aligned product leadership on requirements, completed technical scoping and implementation, and led QA testing.
- Resolved on-call production customer incidents using **test-driven debugging practices** by writing tests to reproduce failures before implementing fixes and expanding the test suite to prevent regressions.
- Authored a finalized product description for non-technical stakeholders and delivered an internal presentation to the customer-facing support team ahead of production release.

Software Engineer, Autonomy Systems   July 2023 – Nov 2025
Aurora Flight Sciences (Boeing), Cambridge, MA

Business Insights Application — CP-SAT Optimization Platform for Boeing Aircraft Technology Selection
- Led full-stack development for a **CP-SAT optimization framework** and interactive decision-support dashboard guiding Boeing's technology selection for next-generation sustainable aircraft.
- Owned a full-stack migration from a Python Dash monolith to PostgreSQL + FastAPI + React TypeScript, **designing the database schema**, migrating 2GB of data, and rebuilding all functionality — AG-Grid database operations, route mapping, and interactive charts — for Boeing's internal hosting environment.
- Authored the program's first **30-page documentation suite** detailing the mathematical formulation and software architecture of the optimization framework; recognized with Aurora's internal recognition award.
- Collaborated on **extending the decision model** with time-dependent logic allowing optimal selections to persist across multi-year planning horizons
- Designed and presented **model-derived case studies** to 25 Boeing engineers at a sustainability workshop.

Cascade Climate Impact Model —Boeing Aviation Emissions Modeling Platform
- Redesigned the Non-CO_2 emissions module, reducing runtime from 17 minutes 50 seconds to 4.3 seconds (99.6% improvement) through algorithm redesign and refactoring; I unblocked the model's first external deployment for aviation customers and won first place in an internal engineering hackathon.

EDUCATION

University of Michigan, Ann Arbor   April 2023
BSE in Computer Engineering, Minor in Mathematics, Magna cum Laude

SKILLS

Languages:	Python, C++, TypeScript, JavaScript, Bash
Frameworks:	React, FastAPI, Angular
Data & Infrastructure:	PostgreSQL, SQL, REST APIs, Docker, GitLab CI/CD