

ZACKARY LOEVSETH

SPACEX CUSTOMER OPERATIONS | INDEPENDENT RESEARCH | AI & DATA ANALYSIS

Los Angeles, CA | 805-886-9611 | zloevseth@gmail.com | [GitHub](#) | [Research Portfolio](#)

PROFESSIONAL SUMMARY

SpaceX customer operations professional and independent researcher with experience solving high-volume billing, shipping, and fulfillment problems. Uses AI, data analysis, and clear documentation to investigate issues, improve workflows, and train teammates. Earned SpaceX's "Kick Ass Award" for improving customer-facing information for Nordic markets. Independently develops mathematical research with reproducible code, separate checks, and public documentation. SpaceX has not sponsored, reviewed, or endorsed this independent research.

PROFESSIONAL EXPERIENCE

SpaceX | Hawthorne, CA

Sep 2025 - Present

Customer Support Associate I (Norwegian) | Billing, Shipping & Fulfillment

- Integrated AI into daily case analysis, troubleshooting, and documentation while remaining among the team's top performers.
- Identified and resolved billing problems affecting tens of thousands of orders, along with related high-volume shipping and fulfillment issues.
- Created step-by-step guides and trained teammates to use AI for faster, more consistent customer support work.
- Earned SpaceX's "Kick Ass Award" for correcting and improving customer-facing content for Nordic markets and reseller partners.

Fund for the Public Interest | Los Angeles, CA

2022 - 2024

Canvassing Field Manager / Director

- Promoted from Field Manager to Director; oversaw daily office operations and reported results to regional and state leaders.
- Managed and coached 3-5 canvassers each day, including meetings, goals, schedules, transportation, hiring support, and performance development.
- Raised more than \$20,000 in one summer and ranked among the organization's top national fundraisers, at approximately five times the office average.

The Salvation Army | Bergen, Norway

2018 - 2022

Social Worker, Chef & Server

- Prepared and served food for 30+ patrons, managed inventory and budget needs, maintained records, advocated for people with substance-use disorders, and de-escalated conflicts.

FFF | Oslo, Norway

2020

Event Supervisor

- Built environmental-justice installations, provided educational support, and coordinated event security and logistics.

EDUCATION

California State University, Northridge | Northridge, CA

May 2025

B.S. Geography and Environmental Studies | Minor in Geology | GPA: 3.8 | Cum Laude

SKILLS

AI & operations: AI-assisted issue analysis, process improvement, workflow documentation, customer support, billing, shipping, fulfillment, and team training

Research: mathematical writing, proof development and checking, exact computation, reproducible analysis, independent validation, and experimental design

Technical: Python, Ruby, C, Bash/Zsh, Git/GitHub, LaTeX, GAP/SmallGrp, Lean, FLINT/Arb, and SymPy

Languages: English and Norwegian (fluent); strong comprehension of Swedish and Danish

ZACKARY LOEVSETH | INDEPENDENT RESEARCH

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RESEARCH OVERVIEW

Independent Researcher | Theory of Epistemic Control (RR-ETI)

2026 - Present

Mathematics, computational research, and human-AI research methods

- Designed a method for tracking claims, evidence, corrections, and status changes during AI-assisted research.
- Separates brainstorming, internal checking, and external review; public releases do not imply peer review or historical priority.
- Completed three public GitHub preprint releases and one certified pointwise computational result with reproducible code and documented validation; external specialist review and journal/arXiv submission remain pending.

SELECTED RESEARCH & PUBLIC PREPRINTS

[Counterexamples to Five Graffiti3 Finite-Group Inequalities](#) | *Finite-group theory*

Result: Proved exact families for C20, C21, C22, C27, and C28: $U7(q)$ for the first three and dihedral families for the latter two. SmallGrp first-failure statements remain database/version/range scoped.

Verification/status: Separate exact checking, mutation tests, and reproducible release; external specialist review pending.

[Planar Projection Bounds for Semiorder Ideals](#) | *Combinatorial optimization*

Result: Proved projection bounds for represented semiorders and planar projections of their ideal hulls, and derived an exact verification method. Unrestricted parametric closure remains open.

Verification/status: Finite replay covered 318,667 cases, 3,978,057 ideals, and 2,311,018 projected points; computation corroborates but is not the proof; external review pending.

[Bounds for Minimal Counterexamples to the Erdős-Gyárfás Conjecture](#) | *Graph theory*

Result: For a hypothetical lexicographically minimal counterexample, proved $|A| \geq 2b+s+4$ and its proved consequences; the global conjecture remains open.

Verification/status: Definition-level proof reconstruction, independent implementations, and a 21-gate reproducibility package; external review pending.

ADDITIONAL RESEARCH PROGRAMS

[Erdős Problem #409 - Certified Pointwise Result](#) | *Number theory*

Result: Released $F(400000287233629)=104$ and therefore $\sup_n F(n) \geq 104$. This is not a priority, maximum, unboundedness, density, inverse-tree, or global-solution claim.

Verification/status: Separate evaluators, factor-from-scratch replay, mutation rejection, and SHA-256 integrity checks.

[Riemann Hypothesis Research Program](#) | *Analytic number theory*

Result: RH remains UNSOLVED / IN PROGRESS. v2 was rejected at N06; v3 is stopped at a frozen dependency-schema obstruction. There is no accepted EvalW certificate, off-line zero, or global positivity theorem.

Verification/status: Internal candidate work is not formalized or externally reviewed; no continuation is active in this portfolio update.

LEADERSHIP & COMMUNITY

Vice President, Association of Norwegian Students Abroad - Los Angeles (2021 - 2023) | Young Friends of the Earth Norway (2018 - 2021) | Norwegian Union of Municipal and General Employees (2018 - 2021) | TreePeople volunteer (2023)