ALMAS PERNESHEV

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EDUCATION

Santa Monica College — STEM Scholars
California Polytechnic State University, San Luis Obispo — *President's Honor June 2025*
Bachelor of Science, Computer Science — *Cum Laude GPA ~3.7*

COURSEWORKS & SKILLS

Coursework: Data Structures and Algorithms, OOP and Design, Database Systems, Design and Analysis of Algorithms, Systems Programming, Computer Architecture, Theory of Computation, Software Engineering I, Cybersecurity, Programming Languages, Operating Systems, Dynamic Web Development, Distributed Computing, Artificial Intelligence, Scientific & Information Visualization, Deep Learning, Machine Learning in Cybersecurity

Languages: C/C++, Java, Python, Assembly (RISK-V), JavaScript, TypeScript, HTML, CSS, Rust, SML

Databases: MySQL, PostgreSQL, MongoDB, SQLite, Parquet, Supabase, SQL Alchemy, Reddis, Duck DB

Frameworks: Flask, Django, Fast API, Express.js, Node.js, React, D3.js, Lit, Vega-Lite, PyTorch, Gymnasium, Spark

Tools: AWS, Postman, Linux/Unix, Figma, Docker, Azure, Vercel, Git/GitHub, Terraform, Grafana, Kubernetes

PROFESSIONAL EXPERIENCE

Full Stack Engineer — *RazeMath, 6/ 2025 – Present*

As a full-stack engineer at a start-up, I'm developing a next generation AI tutoring service to integrate with universities, where I worked on transitioning from Streamlit to Next.js, designing instructor's Dashboard, setting up SSO Auth, and enhancing a prompt page using **Next.js, Firebase, Django Rest,** and **Vercel**.

Tutor: Computer Science and Mathematics — *Cal Poly SLO, Fall 2022 – Spring 2025*

Tutored **+2000 students** on courses: Calculus I - IV, Linear Algebra, Discrete Math, DSA, Programming in C/Java/Python, Theory of Computation, Database Systems, Distributed Computing, OOP, Design & Analysis of Algorithms, Systems Programming, Cybersecurity, and Software Engineering.

AI/LLM Code Quality Tester — *Outlier, 10/2023 – 05/2025*

Tested LLM-generated code responses across multiple programming languages, queries, and frameworks such as **Python, Java, C/C++, JavaScript, MySQL, ExpressJS, and ReactJS**. Authored detailed suggestions and fixed invalid generated code responses to enhance the performance, security, and scalability of LLM-generated code.

Teacher Assistant and SI Leader Roles

- **Theory of Computation (CSC 445)** — *Cal Poly SLO, Fall 2024*
- **Programming in C/C++ (CS50/CS52)** — *Santa Monica College, Spring 2022*
- **Multivariable Calculus (MATH 11)** — *Santa Monica College, Spring 2020 – 2022*

Conducted supplemental/exam preparation sessions, office hours, and assisted with grading **+1000 students**

SAT Math Instructor — *Grantly, 9/2021 – 2/2022*

Led SAT Math preparation sessions for **4 groups of 5-10 students**. Developed a structured syllabus, study materials, session agendas, and mock exams to simulate real test conditions. Achievements: My students averaged 695/800-174 points above the global average in 2022. Personally scored 780/800 in Math, ranking in the **World's Top 1%** in 2017.

PROJECTS

[Open-Source] Potion Game: *TypeScript, Ably, Superbase (Postgres), SQLite3, CI/CD, Docker, Terraform, Prometheus*

Contributed to **9 Pull Requests** in open-source **event driven multiplayer real-time game** of Potions with community of over 70 developers, where I integrated metrics visualization using Prometheus and Grafana, designed and implemented a new feature of expanded inventory, added keyboard interaction listeners, and end-to-end/unit tests.

[Paper] Empirical Study of Privacy Preserving Machine Unlearning against MIA: *PyTorch, CNN, MIA, SSD*

Implemented a State-of-Art Machine Unlearning via **Selective Synaptic Dampening (SSD**) to preserve Data Privacy on fine-tuned CNN against Membership Inference Attacks (MIA).

[Personal Project] PolyPlace: React, NodeJs, Supabase (Postgres), Pub/Sub, JWT, Websockets, Azure, Vercel

Designed and delivered a real-time, multiplayer online art game using event-sourcing and pub/sub architectures for WebSocket server. For client, I designed smooth panning/zooming over 1000x1000 pixel Canvas Map UI.