ROHIN SOOD

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Education

University of California, Berkeley Expected May 2028
B.S in Electrical Engineering and Computer Sciences **3.85**
- **Relevant Coursework:** Deep Learning for Computer Vision, Data Structures & Algorithms, Data & Systems, Probability & Statistics, Linear Algebra & Differential Equations, Circuits & Systems, Discrete Math, Computer Architecture

Experience

Qualcomm San Diego, California
Embedded/Machine Learning Engineer Intern May 2026 - August 2026
- Created a platform for building and deploying agentic workflows, automating **15+** deployed modem SWE jobs for **600+** users. Built with a Claude Agent SDK backend powering natural-language builder chat, agent creation, and LLM-as-judge evaluation.
- Supported modem, camera, CPU, and GPU root-cause analysis by optimizing agent harnesses and contributing to LogTalk's post-training process, connecting enterprise AI agents with hardware-log triage and subsystem investigation.
- Achieved **3×** decoding throughput and **34%** lower TTFT by benchmarking MCP + RAG agents on Snapdragon X-Elite's NPU and integrating C/C++ QNN/Hexagon APIs for tensor allocation, operator dispatch, and device synchronization.

NASA Ames Research Center Remote
AI/ML Research Intern August 2024 - August 2025
- Identified **2–3×** more reproducible gene candidates across **3+** spaceflight studies by combining predictive models and causal inference to investigate expression biomarkers and compare candidate reproducibility across studies.
- Improved cross-study gene-discovery consistency by **40%+** by proposing GRIP (Generalized Regression-based Inference Platform), a modular ensemble of ANN, SGD, Ridge, and Naive-Bayes regressors for biomarker discovery.
- Attained held-out $\boldsymbol{R^2 > 0.90}$ in a **5-model** RR-9 retinal transcriptomics ensemble by analyzing oxidative-stress and apoptosis signatures; co-authored the May 2026 *npj Microgravity* paper with feature-importance analyses and figures.

Jirav (Series B Startup) Remote
AI Developer (Contract) February 2026 - May 2026
- Enabled natural-language analysis across **50+** financial datasets by architecting an MCP layer over **15+** REST APIs, translating user questions into structured revenue, cost, and departmental data retrieval for Jirav's FP&A platform.
- Grounded financial insights in reproducible calculations by implementing deterministic retrieval and time-series analysis for revenue/COGS queries, margin calculations, variance and scenario comparisons, and dimensional slicing.
- Reduced manual financial reporting by developing a natural-language engine for SaaS artifacts, connecting business records with predictive insights and contextual analysis across customer, product, and department dimensions.

Projects

Vision-Guided Self-Steering Cane August 2026
- Won the Snapdragon Multiverse Hackathon among **100** participants by co-building a self-steering cane integrating a Snapdragon phone, Arduino UNO Q, motorized tip, pivoting camera mount, and six-roller printed omni wheel.
- Stabilized steering and enabled local hazard overrides by combining phone-side depth and walkability estimates with board-side sensing and actuation, using directional commitment to reduce rapid left-right command changes.

Competition Robot with Omnidirectional Movement + 2-DOF Arm January 2025
- Built a robot to acquire/launch foam rings for competition, placing **4th/56** teams; enabled omnidirectionality via independently steered swerve modules with Java motion controls, AprilTag-based pose estimation for localization and autonomous navigation.
- Mounted a 4-bar linkage on a 1-DOF arm to acquire and launch foam rings. Designed in SolidWorks, CNC/laser-cut fabrication, and mechanical assembly; implemented inverse kinematics for gravity feed forward under changing loads in ROS 2.

Campus Involvement

Valley Consulting Group — Senior Technical Consultant Berkeley, California
- Delivered prototypes and executive recommendations during a **12-week** Qualcomm Compute engagement by combining AI/ML development, hardware benchmarking, and competitive research with biweekly syncs and midterm/final presentations.
  Club's past clients include Google, NVIDIA, Microsoft, Notion, Airbnb, and Qualcomm.

Replit Campus Ambassador August 2026
- Grew campus engagement by **35%** and expanded Replit adoption to **300+** students by leading **7** workshops, hackathons, and builder events, cultivating a developer community, and delivering user feedback to Replit's product team.

Skills & Interests

- **Software:** Python, Java, C/C++, Go, Flask, TensorFlow, PyTorch, AI/ML, Agent SDKs, Embedded Firmware, AWS (EC2, S3), Docker, Git, JavaScript, TypeScript, SQL, React, Node.js, Express.js, NumPy, Pandas, ROS 2, Linux, CI/CD
- **Hardware:** SolidWorks, AutoCAD, Siemens NX, Ansys, GD&T, Analog/Digital Circuits, PCB Design (Altium), Soldering, Laser Cutting, FDM 3D Printing, Waterjet Cutting, Mechanical Assembly, Root Cause Analysis
- **Interests:** Playing bass and guitar, surfing, woodworking, weightlifting, watching basketball, hiking