

Kavish Shah

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EDUCATION

UNIVERSITY OF CALIFORNIA LOS ANGELES

Expected June 2029

Bachelor of Science, Electrical Engineering

GPA: 3.51/4.00

- **Awards:** Samueli Foundation Engineering Centennial & Upakar Neetu Watumull Scholarships, Gold Division CyberPatriot
- **Relevant Coursework:** Multivariable Calculus, Computer Science, Physics: Electricity & Magnetism, Electrical Engineering

WORK EXPERIENCE

Undergraduate Researcher | VAST Lab, UCLA Electrical Engineering

February 2026 – Present

- Investigating machine learning approaches to accelerate Boolean Satisfiability (SAT) solving processes
- Benchmarked machine learning-enhanced solvers against traditional heuristic algorithms, creating Python scripts to parse performance data and identify computational bottlenecks
- Focusing on foundational research and algorithmic integration required to optimize standard SAT solver performance

Full-Stack Software Developer Intern | AvantGarde Ventures

July 2025 - September 2025

- Engineered a ground-up enterprise resource tracking software utilizing Microsoft Azure, Next.js, Supabase, and Tailwind CSS, serving as the lead developer to support corporate clients
- Developed responsive interfaces and backend systems in a virtual environment, increasing workflow efficiency by 30%
- Applied capability modeling and Git collaboration to streamline project development lifecycles across 5-person team

Front-End Software Development Intern | Rentful

May 2023 – August 2023

- Leveraged the T3 stack (Next.js, TypeScript, Tailwind CSS, tRPC) to create interactive web forms connecting landlords and tenants, reducing application processing time
- Partnered with the early-stage founding team, including the CEO and CFO, in weekly meetings to design UI wireframes
- Engineered a centralized data pipeline to route service requests and synchronize information for 50+ users and managers

EXTRACURRICULAR ACTIVITIES

Director of Recruitment | Bruin Strategy Network

October 2025 – Present

- Led consulting engagements with Fortune 500 med-tech clients, worked with Dexcom, delivering strategic recommendations on AI diagnostic market entry, global regulatory policies, and FDA guidelines
- Recruited through a <3% acceptance rate and will direct the upcoming recruitment cycle for 400+ prospective candidates, managing a rigorous 3-week pipeline of resume screenings and multi-stage case interviews

Build Team Engineer | UCLA Biomedical Engineering Society

October 2025 – Present

- Designed and fabricated a pulse oximeter, utilizing C++ for embedded systems programming and Arduino for data processing of 2 key biological metrics
- Executed complex circuit design and breadboarding to integrate optical sensors, interpreting biological signals for heart rate and oxygen saturation monitoring within 5% precision
- Applied digital signal processing techniques in C++ to filter ambient noise from photoplethysmogram (PPG) waveforms, improving the stability of continuous monitoring

Hardware & Software Engineer | IEEE Donkey Racers

October 2025 – Present

- Enabled fully autonomous track navigation by training and deploying a Convolutional Neural Network (CNN) on a Raspberry Pi to translate visual data into real-time steering and throttle commands
- Processed real-time camera feeds using OpenCV, applying HSV conversion, Gaussian blur, and adaptive thresholding to isolate track contours and directional arrow

Electrical Engineer | Creative Labs

January 2026 – April 2026

- Developed the control circuitry for an oscillating fan with multiple modes and a two-button interface for setting custom temperature triggers
- Handled the electrical design from initial breadboarding and soldering to custom KiCad PCBs, while also assisting with the 3D printing of mechanical enclosures

Low Voltage Sub-Team | Bruin Racing Supermileage

October 2025 – January 2026

- Spearheaded the electrical design of the safety board for a Hydrogen fuel cell-powered vehicle, ensuring critical system shutdown capabilities within 5 milliseconds
- Developed technical blueprints and produced professional schematics using KiCAD, managing the full lifecycle from rough concept to PCB fabrication

SKILLS & INTERESTS

- **Skills:** C++, Python (NumPy, Pandas, scikit-learn, PyTorch, matplotlib), TypeScript, JavaScript, Java, Next.js, React JS, Node.js, HTML, tRPC, Tailwind CSS, Supabase, KiCAD, Breadboarding, PCB Design, Arduino, Git, Soldering
- **Interests:** Tennis (huge Federer fan), Hiking, Reading (love Red Rising), Basketball, Personal Finance (Morning Brew Daily)