Priya Raghunathan - Common App and Princeton questions

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This is a fictional applicant written for this sample; the school, the kayak shop and the watershed group are invented.

Profile

- Plan: Single-Choice Early Action (submitted Oct 30, 2026). Intended degree: B.S.E., Civil and Environmental Engineering.
- Languages: English (native), Tamil (spoken at home), Spanish (intermediate).
- Family: Father, Ramesh, is a database administrator. He was laid off from an insurance company in April 2025 and has worked on contract since October 2025. Mother, Lakshmi, is a dental hygienist. Brother, Arjun, 13, is in eighth grade. My parents moved from Chennai in 2006 and became U.S. citizens in 2019.

Education

- Northgate High School, Columbus, Ohio (public, ~1,900 students). Class of 2027.
- GPA 3.86 unweighted, 4.42 weighted. Class rank not reported.
- Senior courses: AP Calculus BC, AP Physics C: Mechanics, AP Environmental Science, AP English Literature, AP U.S. Government, Spanish IV.
- Earlier APs: Calculus AB (5), Physics 1 (5), Chemistry (4), U.S. History (4), English Language (4).
- Additional information: I earned a B- in AP Chemistry in the first semester of junior year, the semester after my father's layoff. I finished the year with an A-.
- SAT 1470 (Evidence-Based Reading and Writing 700, Math 770), second sitting. My first score was 1390.

Activities

1. **Co-captain, Science Olympiad** (grades 9-12, 6 hrs/wk, 30 wks/yr). I compete in Tower and Water Quality. I lead a 30-member team and started Thursday build nights, where we test towers until they fail. Our tower collapsed at the 2025 state tournament; we placed 7th in Tower at state in 2026.
2. **Volunteer stream monitor, Alum Creek Watershed Friends** (grades 10-12, 3 hrs/wk). I sample four sites monthly for E. coli, nitrates and turbidity. I built a shared spreadsheet that showed E. coli spiking within 48 hours of heavy rain at two sites downstream of storm outfalls. I presented the findings at the group's 2026 annual meeting, and the group now adds rain-triggered sampling dates.

3. **Rental desk and dock hand, Riverbend Outfitters** (summers 2025-26 at 28 hrs/wk; fall weekends at 10 hrs/wk; paid). I check out kayaks on the Scioto, give safety talks and read the USGS flow gauge every morning. We close the river when flow passes our safety limit.
4. **Carnatic violin** (grades 1-12, 4 hrs/wk). I perform annually at our temple's Thyagaraja Aradhana festival.
5. **Math tutor, Northgate Peer Tutoring** (grades 11-12, 2 hrs/wk). I tutor Algebra II and precalculus.
6. **Family responsibilities** (grades 10-11, 10 hrs/wk). I picked up and cared for my brother while my mother took extra shifts after the layoff.
7. **Pre-engineering summer program, Ohio State University** (summer 2026, 2 weeks, commuter). I joined a team that designed a bioswale for a parking lot.

Honors

- Science Olympiad Ohio State Tournament, 7th place, Tower (2026)
- Northgate Physics Department Award (2026)
- National Merit Commended Student (2026)
- AP Scholar with Honor (2026)

Common App personal essay (prompt: a setback or failure)

Our tower held 8 kilograms for about four seconds. Then a joint near the base sheared, and the whole thing folded sideways onto the judge's table at the 2025 Ohio Science Olympiad state tournament. We had built it from balsa and glue over six weeks. We had tested it exactly once.

I remember being angry at the wood. Then I was angry at my partner, Dev, who had cut that joint. On the bus home I worked out the truth: nobody had broken that tower on purpose before the judges did.

That April was already strange at home. Two weeks before state, my father was laid off after eleven years at an insurance company. He kept getting dressed in the morning anyway. He made spreadsheets of applications the way he used to make spreadsheets of databases. My mother picked up Saturday shifts, and I started picking up my brother after school. Nobody told me to. It just became Tuesday and Thursday.

Watching my dad, I noticed he treated rejections as data. Forty-one applications, six interviews, one offer, which he turned down because it was a 90-minute commute. He wasn't calm about it; I heard him on the phone at night. But he kept testing and adjusting.

That summer I read Henry Petroski's *To Engineer Is Human*, which argues that engineering advances through failure. I came back to Science Olympiad as co-captain with one rule: we break things on Thursdays. We build three towers per design and load them until they snap. We photograph every break and tape the photos to the wall. Freshmen thought it was wasteful. Then they started cheering for the breaks.

We placed 7th in Tower at state in 2026. That is not a trophy. It is twenty-three places better than a pile of balsa on a judge's table.

My father started contract work in October. We still don't know whether it will become permanent. I've stopped expecting things to hold just because I want them to. I'd rather know where they'll fail.

Princeton questions

Why engineering at Princeton? (250 words)

Every morning at Riverbend I check the USGS gauge on the Scioto before we rent a single kayak. Above our limit, the river closes. That number is the end of a long chain: rain, pavement, storm drains, the creek I sample upstream. In Alum Creek I saw what happens when water moves too fast off hard surfaces. E. coli spikes for two days after every big storm.

I want to design the other end of that chain: drainage, green infrastructure and water systems that hold up in heavier storms. I visited Princeton in July 2025 while staying with my aunt in Edison. A student guide described her CEE senior thesis on urban flooding, and that was the first time I pictured doing research rather than just collecting samples. I want the independent work and the senior thesis. I want to take environmental engineering alongside policy courses, because a bioswale is also a zoning question. I also want to join Engineers Without Borders, where I could build something outside a classroom and test it until it fails.

Briefly elaborate on an activity or work experience (150 words)

At Riverbend I've turned away a family that drove an hour, because the gauge read 1,900 cubic feet per second. The father argued for ten minutes. I explained what the number meant, showed him the chart and gave him a rain check. I've also trained three new hires on safety talks. The job taught me that rules are easier to defend when you understand them.

Service and civic engagement (250 words)

My service is small and wet. Once a month I wade into Alum Creek with sample bottles. What made it civic was the spreadsheet. Three years of volunteers' numbers had sat in separate notebooks. When I combined them, the rain pattern was obvious. Presenting it to forty adults, most of them retirees, was terrifying. One of them, a retired city engineer, emailed me afterward with questions. Now we sample after storms. At Princeton I'd like service that uses data like this, linking campus research to real communities.

Community and conversations (250 words)

My parents came here on an H-1B visa. For years, my father's job decided whether we could stay. When classmates debate immigration in AP Gov, I bring what policy feels like from inside a household: waiting on paperwork, renewal dates on the calendar. I also try to listen, because a classmate whose family lost manufacturing jobs sees it differently, and he's not wrong about his town. I'd bring that to Princeton: I'll say where I'm coming from, then ask questions.

A new skill you'd like to learn (50 words)

I want to learn welding. Everything I've built is balsa or glue, and I want to make something that has to carry real weight.

What brings you joy? (50 words)

Sunday mornings, my brother and I watch *The Great British Bake Off* while Amma makes dosa. We score the bakes harshly, and we're always wrong.

Song that represents your life right now (50 words)

"Endaro Mahanubhavulu" by Thyagaraja. I've played it every year at the festival, and every year I understand a different part of it.