

## PRAKHAR MODI

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### EDUCATION

**Virginia Tech**– Blacksburg, VA  
**Bachelor's– Computer Science**

**December 2026**  
**GPA: 3.80**

- Dean's List - All semesters
- Computer Organization
- Data Structure and Algorithms

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### PROFESSIONAL EXPERIENCE

#### Tutor

**August 2025 - Present**

**Student Success Center @ Virginia Tech**– Blacksburg, VA, USA

- Tutor 1:1 and small groups, tutoring in Math (e.g., Calculus, Linear Algebra, Discrete) and CS (programming fundamentals, data structures/algorithms).
- Clarify concepts, walk through coursework/problem-sets, and create mini-review materials; coach study strategies and exam prep.

#### Undergraduate Research

**August 2025 - Present**

**Cliff Shaffer @ Virginia Tech**– Blacksburg, VA, USA

- Implementing **Parsons problems** into the **OpenDSA** interactive CS textbook used at VT, integrating exercise templates, grading logic, and **UI hooks** with existing modules (repo: OpenDSA/Parsons).
- Writing and reviewing problem specifications, unit tests, and docs; contributing pull requests and code reviews in Git/GitHub.

#### Assistant Project Manager (Intern)

**July 2025 - September 2025**

**ABE Scott Enterprises**– Remote

- Led the development of the public transit integration for **MyRideLink app**, overseeing system architecture and backend logic using **OpenTripPlanner2** to deliver efficient multi-modal routing.
- Implemented backend services in **Node.js** with **PostgreSQL** to fetch, process, and serve accurate public transit route data alongside Uber and Lyft fare comparisons.
- Collaborated cross-functionally with frontend developers to align backend APIs with app features in **React Native**, ensuring seamless **UI/UX** for real-time route and fare updates.
- Conducted technical research to identify and integrate optimal packages and frameworks, contributing to core architecture decisions and improving backend reliability.

#### Treasurer

**August 2024 - August 2025**

**Hindu YUVA @ Virginia Tech**– Blacksburg, VA, USA

- Controlled an annual budget of **10,000 USD** for Hindu Yuva, ensuring optimal allocation of resources for events and activities.
- Administrated all financial operations of Hindu Yuva, including maintaining the bank account, supervising transactions, preparing financial reports, submitting funding request to the university, maintaining budget for 4 major events annually.
- Endorsed data-driven financial decisions by utilizing **SQL** for database management of financial transactions and records, ensuring accurate and accessible financial information.

#### Undergraduate Grading Assistant

**September 2024 - January 2025**

**Virginia Tech**– Blacksburg, VA, USA

- Graded support for **2 sections of ENGE 1215** at Virginia Tech (150 students) with fair assessment and feedback.
- Achieved a high level of accuracy in grading and feedback by leveraging **Excel** to track student performance, applying strong organizational skills to manage grading for two sections.
- Strengthened collaborative efforts within the team by employing effective communication skills during multidisciplinary discussions aimed at improving class outcomes.

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### PROJECTS & OUTSIDE EXPERIENCE

#### Sole Developer, Event Management System for Hindu Yuva @ Virginia Tech

**June 2024 - Present**

- Built a full-stack **ticketing platform (Spring Boot, PostgreSQL, JavaScript)** covering event creation → purchase → secure check-in.
- Integrated **Stripe Checkout** with signed **webhook** validation to auto-issue tickets from price IDs and session metadata.
- Generated per-ticket **encrypted QR codes**, embedded in branded PDF tickets, and stored in **Supabase** for delivery/verification.
- Implemented a QR-based check-in app that scans/validates tickets against the DB and updates status in real time.
- Designed **REST APIs** (events, ticket types, customers) with input validation & **transactional JPA**; automated emails via **Zoho SMTP** using dynamic templates.

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### SKILLS

**Skills:** Python, Java, HTML/CSS, JavaScript, Bash, MATLAB, Dart, Express, Node, SQL