Aadit Barua

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EDUCATION

The University of Texas at Austin

May 2026

B.S. Computer Science, Mathematics

Relevant Coursework: Algorithms, Computer Architecture, Operating Systems, Linear Algebra, Numerical Analysis, Real Analysis, Algebraic Structures, Neural Networks

PUBLICATIONS

• Aadit Barua*, Karim Benharrak*, Meng Chen, Mina Huh, Amy Pavel. Lotus: Creating Short Videos From Long Videos With Abstractive and Extractive Summarization. In *IUI*, 2025. *Authors contributed equally to this research.

Skills & Interests

Languages: Java, Python, Kotlin, JavaScript, HTML, CSS, MATLAB, LaTeX

Developer Tools: Git, IntelliJ, VS Code, Jupyter, Google Colab, Jira, Datadog, Docker

Research Skills: User interviews, Participant recruitment, Designing and implementing studies (e.g., formative studies, system evaluation studies), IRB proposals, Qualitative data analysis (e.g., thematic coding), Analyzing quantitative data using statistical methods

Interests: Rock Climbing, Formula One, Poker, Nintendo Switch, College Football

RESEARCH EXPERIENCE

HCI Lab

DUB REU

Jun 2025 – Present

Research Assistant, Advisor: Amy Zhang

Aug 2023 – Present

Undergraduate Researcher, Advisor: Amy Pavel

Austin, TX

Seattle, WA

- Conducted a formative study exploring strategies and challenges professional video editors face creating short-form videos from long-form videos
- Designed and implemented a system combining abstractive and extractive summarization techniques, featuring a two-stage video creation pipeline and an editing interface to assist users in editing short-form videos
- Planned and conducted evaluations of our video creation pipeline and our system Lotus

Meyers Lab May 2022 – Aug 2022

Research Assistant, Advisor: Lauren Meyers

Austin, TX

- Performed data collection, cleaning, and processing to aid with Covid-19 research
- Wrote a robust scraper, using Selenium, that collected data from 70% of hospitals in Texas
- Programmed a script that automatically performs the mapping of zip code conversions

Industry Experience

Expedia May 2023 - Jul 2023

Software Engineer Intern

Austin, TX

- Impacted 450 million requests/week by using Kotlin to redesign the metric collection system
- Constructed a single integration layer reducing the amount of code in 30+ files across the entire codebase
- Built new functionality into our Datadog dashboards to improve our monitoring capabilities
- Ensured efficient and successful software delivery through design proposals, extensive unit testing, and a CI/CD pipeline