Jai A. Desai

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Education

Georgia Institute of Technology | Atlanta, GA.   *August 2022 - May 2026 (BS), August 2024 – May 2026 (MS)*
4.0 GPA. B.S. & M.S Computer Science   Honors Program, Baseball Scholarship Recipient, Create-X I2P Grant, Dean's List

Skills

Languages: Java, Python, Node.js, TypeScript, Ruby, SQL, R, C, JavaScript, HTML, CSS, Assembly
Technologies: GitHub, React.js, NumPy, Shiny R, Express.js, Spring Boot, Open Liberty, Redis, JEST, Docker, Kubernetes, React Native, Google Cloud Platform (Firebase, Auth), Supabase, AWS EC2/S3, d3.js, PyTorch, Spark,
Courses: Machine Learning, AI, Data Structures, Algorithms, Computer Networking, Systems, Databases

Experience

Stripe Software Engineering Intern | San Francisco, CA   *May 2025 – Present*

IBM Software Engineering Intern | Armonk, New York   *May 2024 – August 2024*
- Built React.js dashboard with D3.js to track flow of 4000+ daily invoicing documents across multiple systems, enabling insights into data volume through CloudantDB to optimize application scalability during peak billing cycles.
- Designed user help page for invoicing dashboard for 50+ new users during team's migration to SAP S/4 Hana.
- Addressed and resolved security vulnerabilities in 30+ requests by implementing robust session expiration logic in React.js and Express.js stack.

IBM Backend Developer Intern | Research Triangle Park, North Carolina   *May 2023 – August 2023*
- Designed Session ID engine middleware for product usage webhook in express.js that received events from aggregated source (Segment), enriched the event with Session IDs, and sent the data to IBM source such as DB2, Amplitude, Kafka, and Cloud Object Storage, enabling product owners to understand product usage patterns.
- Efficiently managed over 900 unique users per minute and stored >30,000 Session IDs in Redis cache instance.
- Provided critical Session ID information that supported executive requests to track user cart abandonment and help clients convert more users from trial to paid versions, along with other time-based attributes.
- Deployed Python cron job to automate generation of a markdown resource for team developers, consolidating all documentation for team developers and offering comprehensive overview for new or unfamiliar team members.

Georgia Tech Baseball Data Analytics Lead | Atlanta, Georgia   *August 2023 – Present*
- Led team of four students in preparing and delivering weekly scouting reports for coaches.
- Developed and deployed Shiny R web application with dashboard that summarizes CSV pitching data for player feedback with 10+ visual charts, 15+ tables. Used daily by Pitching Coaches to review practice sessions.
- Created Stuff+ Pitching Metrics with Principal Component Analysis, so coaches can analyze a pitch's effectiveness.

Yale University and Facebook AI Research Assistant | New Haven, Connecticut   *March 2021 – June 2022*
- Developed Python scripts to clean and annotate data for deep learning summarization models. Conducted human evaluation of model performance and achieved state-of-the-art results using taxonomy-based training strategy.

Peer-Reviewed Publications

- Xiangru Tang, Arjun Nair, Borui Wang, Bingyao Wang, **Jai Desai**, Aaron Wade, Haoran Li, Asli Celikyilmaz, Yashar Mehdad, and Dragomir Radev. CONFIT: Toward Faithful Dialogue Summarization with Linguistically-Informed Contrastive Fine-Tuning. In *Proceedings of NAACL 2022.*
- Borui Wang, Chengcheng Feng, Arjun Nair, Madelyn Mao, **Jai Desai**, Asli Celikyilmaz, Haoran Li, Yashar Mehdad and Dragomir Radev. STRUDEL: Structured Dialogue Summarization for Dialogue Comprehension. In *Proceedings of EMNLP 2022.*

Projects

'Notator' Automatic Notetaking Website | Python, Flask, Django, HTML, JavaScript   *github.com/jdesai22/notatorWeb*
- Website that scrapes web articles from newspaper sites or receives custom text articles and recognizes keywords, quotations, and important phrases. User-Friendly website that streamlines automated note-taking.

Tic-tac-toe AI | Python   *github.com/jdesai22/gameAI*
- Tic-tac-toe game and AI with different levels including a MiniMax Algorithm – backtracking and game theory

Poker Shark | Node.js, Firebase, React Native, Expo Go, Google Cloud Platform   *Jan 2025 – May 2025*
- Built cross-platform mobile app for poker players to track game sessions, gameplay statistics, provide suggestions, and share game sessions with other users. Include privacy features with phone sensors for use in casino.
- Authentication flow with Firebase auth. Stored player stats and match information in GCP Firestore.

Momentum Sports Betting | Python, Pandas, NumPy   *github.com/jdesai22/sports-betting-analytics*
- Built NBA player data and odds api pipeline with Pandas, NumPy to collect data, train a regression model and make predictions based on previous games performance, achieving 51.7% success rate - 0.5% edge on sportsbooks.
- Received $500 grant through Georgia Tech Create-X Idea to Prototype (I2P) Startup Program.