

Siddhant Agarwal

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EDUCATION

Rensselaer Polytechnic Institute

Aug 2021 - May 2025

Bachelor of Science in Computer Science; Minor in Cognitive Science of Artificial Intelligence; GPA: 3.50; Dean's Honor List Troy, NY

Relevant Coursework: Data Mining, Game AI, Data Structures and Algorithms, Discrete Mathematics, Principles of Software, Machine Learning From Data, Operating Systems, Software Design/Documentation, Database Systems, Programming Languages, Cloud Computing

SKILLS

Programming Languages: Advanced: C/C++, Python, HTML, JavaScript, MySQL, PostgreSQL; Basic: C#, Java, Erlang, Arduino, ASP.NET, VB.NET

Developer Tools: NumPy, TensorFlow, Py Torch, FAST API, Pandas, AWS, Azure, MIT App Inventor, React, Flask, Git, Unity, Eclipse, Linux, Arduino

EXPERIENCE

Software Developer Intern

Jan 2024 - Jul 2024

Tenex Software Solutions

Tampa, FL

- Enhanced system stability and efficiency by implementing 50 feature enhancements and bug fixes, resulting in a 25% reduction in error reports and smoother performance in election management software
- Built automation and UI improvements, saving officials 2+ hours daily and enabling real-time ballot tracking across 2,300+ locations
- Optimized 20+ database queries and designed 10 new UI components using .NET, SQL, JavaScript, and Blazor, increasing data retrieval speed by 40% and improving user experience with more intuitive navigation
- Resolved 100+ critical client-reported issues with the new Blazor framework, achieving a 30% increase in system uptime and a 50% improvement in customer satisfaction scores
- Served as customer support for the Chicago primary, providing tech support and ensuring smooth election operations

Undergraduate Teaching Assistant

Sep 2023 - Dec 2023

Rensselaer Polytechnic Institute

Troy, NY

- Conducted weekly office hours for Software Algorithms class, providing support to over 20 students by testing their code, prepping for tests, and responding to class-related inquiries;
- Graded exams for 100+ students, assisting with data structures (trees, heaps, graphs) and algorithms (DP, greedy, backtracking).

Software Engineer Intern

Jun 2022 - Aug 2022

ThoughtFocus Inc.

Edison, NJ

- Integrated AI solutions using LLMs and NLP models (BERT, GPT-based) to streamline private equity data processing, cutting operational time by 20%.
- Developed/optimized test scripts with PyTest and Selenium, reducing errors and downtime by 80%, ensuring system stability.
- Implemented AI-driven tools leveraging scikit-learn and spaCy, increasing data accuracy by 40% and accelerating data processing.

PROJECTS

Explainability of AI MIT App Inventor | Java, Python

Sep 2024 - Present

- Transformed neural networks into decision trees, optimizing inference from $O(N)$ to $O(\log N)$ for faster execution
- Resolved critical environment setup challenges across Android Studio, SDK, and Gradle, achieving 50% improved system stability

Text Generation Training Model | Python

Aug 2023 – Aug 2024

- Developed an LSTM-based text generation model processing 10,000+ movie plots, implementing temperature-based sampling
- Built data preprocessing pipeline with TensorFlow for sequence padding/tokenization, achieving 20% improvement in text generation

RPI Composite | Javascript, Python

Jun 2023 - Sep 2024

- Implemented a web scraping solution using Javascript to consolidate data from multiple college websites into one
- Improved user performance by cutting page load times by 80% and enhanced client experience with interactive features

SuchLife | C#, Unity

Aug 2023 - Dec 2023

- Created 5 unique enemy variants that contributed to a 20% increase in gameplay variety for a 2D C#-powered AI game
- Collaborated with a diverse team (programmers, artists, level-designers) and improved game performance by 15%

LEADERSHIP

Technology Director/Events Co-Director

Apr 2022 - Present

Society of Asian Scientists and Engineers: RPI Chapter

Troy, NY

- Led a 7-member team to revamp main and sub-websites, creating a historical events page that boosted visitor traffic by 70%
- Organized 4+ monthly events and 2 large-scale gatherings (100 attendees), raising \$200 while managing a 13-member team
- Strengthened professional and social engagement by balancing industry networking events with community-building activities