

SAMBUDDHA BISWAS

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EDUCATION

University of Illinois Urbana Champaign (UIUC)

Expected August 2025

Bachelor of Science in Computer Science

Relevant Coursework: Data Structures and Algorithms, Operating Systems, Computer Architecture, Database Systems, Language & Compilers, Numerical Methods, Models of Computation

WORK EXPERIENCE

TryInflux.io: *Full Stack Software Engineer*

October 2024 – Present

- Led development of a B2B SaaS platform, helping companies increase brand awareness through Reddit, with Next.js, FastAPI, Firebase, and Vercel.
- Built an AI search pipeline using OpenAI embeddings and Pinecone to semantically index Reddit posts, enabling agentic search workflows that made post discoveries 80% more efficient
- Deployed a web-scraping, prompt-engineered RAG system leveraging OpenAI and Claude LLMs to generate context-aware, authentic content raising relevancy and one shot posts by 57%.

CCC Intelligent Solutions: *Software Engineer & MLOps Intern*

January 2024 – December 2024

Dashboard Admin Panel

Chicago, Illinois

- Developed an admin panel interface using Vue.js and FastAPI for the AI dashboard, enabling role-based access control (RBAC) for over 35,000 users, improving user management and experience.
- Executed data migration from file-based system to MongoDB, boosting data retrieval supporting 10,000+ records, and enabling dynamic updates for real-time website reflection, expediting development.
- Implemented a logging system by indexing data for fast retrieval, reducing troubleshooting time by 60%.

GitHub Migration

- Automated migration process via shell scripts from GitLab to GitHub, ensuring seamless development in dev and prod for 60+ repos.
- Pioneered CI/CD integration for GitHub Actions, orchestrating complex testing pipelines and achieving 95% reduction in deployment time and minimal downtime.
- Validated deployments across various configurations by utilizing Docker and Kubernetes.
- Refactored Airflow pipelines for better maintainability and compatibility with GitHub Actions, enhancing execution speed and task scheduling efficiency.
- Integrated Selenium scripts into CI/CD pipelines to automate testing, ensuring consistent functionality.

Cadence Design Systems: *Software Development Engineer Intern*

June 2023 – August 2023

Automated Ticket Issue Detector

Noida, India

- Automated API calls to collect 1,000+ live tickets daily, streamlining data gathering process using Jira Service Management system for efficient API integration.
- Developed python scripts and leveraged Elasticsearch, Logstash, and Kibana to index, and analyze data, enhancing data visualization and insights, leading to a reduction in data analysis time.
- Analyzed and filtered gathered data using Kibana and JQL to proactively detect common issues, mitigating potential widespread outages or system crashes, resulting in an 87% decrease in critical incidents.

UIUC: *CS 128 Course Assistant*

January 2023 – December 2023

Intro to Computer Science II

Urbana, Illinois

- Led weekly discussion sections for a class of 50+ students explaining core C++ concepts.
- Assisted students in understanding complex programming topics and debugging principles.

PROJECTS

YouAnalytics

- Led a developer team to create a full-stack web app leveraging YouTube data for in-depth video analytics.

Finance Terminal

- Developed a Finance Terminal with Python, integrating yFinance and Finnhub APIs for real-time financial data, and Reddit API for personalized discussions.

SKILLS

Languages: C/C++, Python, Java, JavaScript, OCaml, HTML, CSS

Full Stack: Vue.js, Next.js, Tailwind, React.js, Node.js, Flask, FastAPI, Pinecone.io, MongoDB, SQL, .NET, Firebase

Infrastructure & DevOps: Docker, Kubernetes, GCP, AWS, Azure, GitHub Actions

Other: Jira, Bash, Elasticsearch, Logstash, Kibana, Git, REST APIs, CICD, Airflow, Pytorch, Selenium