

Asif Uddin

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WORK EXPERIENCE:

Bader Lab, New Jersey Institute of Technology, Newark NJ

Research Assistant

September 2025 - Present

- Implemented a distributed (works on multiple nodes) version of Clustering Modifier, a graph algorithm, in **C++** and **OpenMPI/OpenMP** with **2-4x** speedups

OculoMotor Technologies (Healthcare Startup), Newark, NJ

Software Engineer Intern

October 2024 – May 2025

- Developed an eye-movement tracking model at **9 fps** in **React.JS**, allowing clinicians to visualize the results
- Fixed **10+ bugs** on both frontend and backend in a full stack **Next.JS** project with **Javascript/Typescript** and **Node.JS**
- Selected as **one of two (out of 100+)** software engineers from NJIT in a competitive program to match startups with students

Bloomberg LP, NYC, NY

Software Engineer

September 2021 - March 2023

- Simplified and developed a data quality check tool in **pySpark** that ran after the backfill process to verify correctness of data and data schema, reducing operational time **by 99.9% (from 3 weeks to minutes)**.
- Migrated and implemented backfill checks within the backfill process in **Scala**
- Built a dashboard with **4+ visualizations** of the data quality checks for each dataset in **React.JS**
- Created a rules engine in **Python** with **JSON** for corrections in MIFID-compliant transactions, removing the back and forth between product and engineering and **cutting development time by 99% (from 2 weeks to seconds)**
- Onboarded and transformed **4 datasets** into **Iceberg** tables with **Spark** based on product specifications
- Engineering and populated the database for schema information in **Python** and **SQL** for **over 100 datasets**, creating a central source of schema data

Robust Field Autonomy Lab, Stevens Institute of Technology, Hoboken, NJ

Research Assistant

August 2019 – March 2020

- Combined clustering data from DBSCAN and filtered point cloud data from LIDAR to generate a **7 Hz** occupancy map. Implemented in **Python** and **OpenCV**.
- Conducted research as part of a multidisciplinary team of two to navigate between variable number of multicolored buoys within **five minutes**
- Selected on an interdisciplinary team of four to detect underwater pipes with sonar imaging. Achieved over **99% accuracy** in pipe detection.

EDUCATION:

New Jersey Institute of Technology, Newark, NJ

GPA: 3.92/4

M.S. Computer Science

Stevens Institute of Technology, Hoboken, NJ

GPA: 3.93/4

B.E. Electrical Engineering with Minor in Computer Science

Honors: Dean's List, Pinnacle Scholar

Coursework: Algorithms, Data Structures, Web Programming, Agile Methods for Software Development, Relational Databases, Communication Protocols, Operating Systems, GPU Programming, Programming Language Theory, Deep Learning, Machine Learning, Artificial Intelligence, Cloud Computing, Explainable AI, Discrete Structures, Computer Architecture

AWARDS AND RECOGNITION:

Generative Media Hackathon, New York, NY – Full Stack Software Engineer

April 2026

- Won **1st Place** for GrannyShield, a **real-time phone scam intervention system** featuring a **hybrid FAISS/LLM backend** for live speech-to-text classification and a **Tavus** conversational avatar that visually disrupts fraudulent calls with **near-zero latency**

Google x Columbia Hackathon, New York, NY - Full Stack Software Engineer

March 2026

- Developed **HireSync**, an AI avatar recruiting platform using **React (TypeScript/Vite)**, **Express.js**, HeyGen Streaming Avatar API, **Google Gemini**, **Google Agent Development Kit (ADK)**, Firestore and Cloud Run (Google Cloud Platform - **GCP**)

Stevens Venture Center Health Hackathon, Hoboken, NJ - *Software Developer*

November 2019

- Placed **3rd out of 11 teams** and Selected as **one of 50 out of 200 people**
- Developed an app for Rheumatoid Arthritis Users with Voice Assistant Alexa using **Flask** and **PostgreSQL**

Princeton ReHack, Princeton, NJ - *Software Developer*

November 2019

- Recognized by 1517 fund **out of 20 teams** to pursue venture with 1k grant and 5k AWS Credit
- Pitched an app that automated scheduling in group chats with **NLP**

MIT NYC Grand Hack, NYC, NY - *Software Developer*

November 2019

- Placed **3rd** of 20 teams in the Mental Health track and Pitched to Deerfield an app on relationship counseling for Millennials

TECHNICAL SKILLS EXPERIENCE:

Languages: Python, Java, Scala, JavaScript/ TypeScript, C, C++, Ocaml

Databases: MongoDB, Elasticsearch, PostgreSQL, SQL, PL/SQL

Tools/Frameworks: React, Angular, Express.js, Node.js, GraphQL, RESTful

Other: Linux, ROS, Gazebo, NumPy, OpenCV, Parquet, Iceberg, Kafka, RabbitMQ, Three.js, OpenMPI, CUDA, Spark