Rohan Kumar

(973)-668-1875 | rohankumarrr313@gmail.com | rohan-is.me | linkedin.com/in/rohankumarrr313 | github.com/rohankumarrrr

Education

University of Illinois at Urbana-Champaign **Expected Graduation Date: May 2026**
Bachelor of Science in Computer Science and Statistics (GPA: 3.97 / 4.00) *Champaign, IL*

- **Coursework:** Data Structures, Algorithms, Numerical Methods, Computer Systems, Statistical Modeling

Skills

Programming Languages: Python, C#, C/C++, JavaScript, SQL, HTML/CSS, TypeScript, R
Frameworks & Libraries: React Native, React, Node.js, Flask, Django, TensorFlow, PyTorch, Scikit-Learn, Pandas, Numpy
Cloud & DevOps: AWS (Lambda), Google Cloud Platform, Docker, CI/CD, Git, Azure Services
Tools & Concepts: RESTful APIs, GraphQL, Microservices, Agile methodologies, Test-Driven Development

Experience

Software Developer Intern January 2025 – Present
kWh *Champaign, IL*

Software Developer Intern June 2024 – July 2024
AM Best *Oldwick, NJ*

- Developed an API in .NET Core framework using C# to efficiently query and display finacial records and credit ratings from 300+ large insurance clients.
- Designed and deployed serverless applications on Internet Information Services (IIS) and CI/CD pipelines using Azure, enhancing performance with efficient database queries and caching strategies, reducing query response times by 25%.
- Built a Blazor web app with RESTful APIs and MySQL for real-time data sync, collaborating with insurance companies to efficiently handle 1k+ records.

Software Engineering Research Assistant January 2024 – Present
Siebel School of Computing and Data Science, UIUC *Urbana, IL*

- Engineered a scalable data processing pipeline to analyze 8+ gigabytes of project teamwork data, enabling actionable analytics, improving data accessibility and query efficiency for team contribution evaluation.
- Architected and deployed a scalable Google Cloud Firebase infrastructure, enabling efficient read-write operations and data management for 100+ simultaneous users during implementation in CS 465, a UIUC project-based course.
- Developed a responsive Next.js front-end with real-time data tracking, deployed through Qualtrics with CI/CD pipelines, achieving sub-1 second page load times and 99% success rate.

Software Developer Intern November 2023 – January 2024
Changing the Present *New York City, NY*

- Increased Shopify product page engagement by redesigning and implementing a fully responsive UI using Liquid, resulting in a complete overhaul of the user experience.
- Improved API data flow efficiency by leading communication between front-end and back-end teams, streamlining integration between the API and the front-end webpage.
- Enhanced team productivity by 15% by driving the adoption of agile methodologies using Git, enabling more efficient iterative development cycles.

Projects

National Organization for Business and Engineering, UIUC | *Project Manager* January 2025 - Present

- Led the full-stack development of SafeFit, a muscle dashboard website leveraging React.js, Flask, and GCP to provide real-time AI-driven analysis of muscle movement data.
- Engineered an EMG data pipeline using TensorFlow, improving injury risk detection accuracy by 60% and enhancing patient recovery tracking for athletes and physical therapists.

Disruption Lab at Gies, UIUC | *Software Engineer* January 2025 - Present

- Designed and deployed an AI-powered energy modeling platform, integrating Python, Prophet, and Google Cloud Platform to optimize large-scale energy consumption simulations, reducing computational modeling time by 90%.
- Improved forecasting accuracy by implementing machine learning models (Vercel AI, Scikit-Learn to analyze power usage patterns in regions of Latin America.

Cooper Medical School | *Data Scientist Research Assistant* December 2024 - Present

- Developed predictive models using multivariate and univariate logistic regression to analyze hospital stay durations, improving predictive accuracy by 20% and identifying key risk factors in patient data.
- Designed interactive statistical dashboards with Python, Pandas, and Seaborn, enabling Cooper Medical School researchers to make data-driven decisions for optimizing patient care strategies.