Krish Gandhi

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EDUCATION

University of Illinois at Urbana-Champaign

Aug. 2022 – May 2026

B.S. in Computer Engineering, B.S. in Statistics, Minor in Computer Science, Minor in Business

Urbana, IL

Awards: James Scholar 2022-23, James Scholar 2023-24, James Scholar 2024-25

GPA: 3.64

Coursework: Machine Learning, Computer Systems, Data Structures, Signal Processing, High Frequency Trading

• Had enough credits for senior standing after first semester of college

Experience

Co-Founder and Lead Software Engineer

Jan. 2024 - Present

Pharmacy Associates

Chicago, IL

- Designed and built cloud infrastructure for data warehousing and CI/CD pipelines with Snowflake and AWS services (S3, Glue, Lambda, Step Functions, IAM) to automatically load and store 1,500,000+ records monthly.
- Created a CI/CD pipeline to automate deployment of AWS Lambda and AWS Glue functions using GitHub Actions
- Deployed machine learning solutions using AWS (Textract) to perform ETL tasks on 50,000+ records monthly.

Software Engineering Intern

Jun. 2024 – Aug. 2024

Optum | UnitedHealth Group

Basking Ridge, NJ

- Created a CI/CD pipeline to automate unit testing of 250+ critical components with Apache Kafka, GitHub Actions, AWS S3 and Java to increase system security and save \$300,000+ in resources and 2,600 man hours annually.
- Built a full-stack web app using Flask to automate network analysis, speeding up process by 81%.
- Developed a script to determine 185 relevant GitHub repos out of 30,000 and parse from the configuration files.

Electrical Engineering Co-op

May 2023 – Jan. 2024

Collins Aerospace

Rockford, IL

- Designed and optimized models of complex systems in MATLAB and Simulink to simulate and visualize generator behaviors based on generator properties and environment conditions, speeding up computing time by 97%.
- Automated data extraction and analysis processes by building internal web scraping and ETL tools with Selenium, NumPy and Pandas libraries, increasing data accuracy and reducing manual processing time by 92%.
- Led cross-functional team efforts on design, development and execution of electrical test equipment and procedures for cutting-edge 3-Phase and 6-Phase standstill frequency response testing, which is now used by a team full-time.

RESEARCH

Software Engineering Intern

Oct. 2024 - Present

UIUC FinTech Lab | University of Illinois at Urbana-Champaign

 $Chicago,\ IL$

- Built a CI/CD platform to gather, decode and simulate market data from various sources (IEX, NASDAQ, etc.).
- Implemented a backtesting framework to automatically test algorithmic trading strategies on historical market data across specified time periods, leveraging distributed systems while enforcing constraints computing power usage.

Software Engineering Intern

Jan. 2024 - May 2024

Yu Research Lab | University of Illinois at Urbana-Champaign

Urbana, IL

- Produced initial states and simulated Markov models with NumPy, pandas and SciPy libraries to find models which yielded distributions similar to real statistics for patients with Major Depressive Disorder or Bipolar disorder.
- Visualized changes in Markov model states over simulated time by integrating Matplotlib and Seaborn libraries.

Projects

Virtual Whiteboard | Python, OpenCV, MediaPipe, NumPy | GitHub Link

May 2024

- Developed a program to mimic the functionality of a whiteboard by utilizing the user's device's camera.
- Integrated draw, clear, and exit functionality controlled by the user making certain hand gestures at the camera.
- Accessed camera to detect and track 21 landmarks on user's hands by utilizing OpenCV and MediaPipe libraries.

TECHNICAL SKILLS

Languages: Python, C++, C, SystemVerilog, SQL, SnowSQL, SQLite, Java, MATLAB, Simulink, LC-3 Assembly Libraries: boto3, pandas, NumPy, OpenCV, Requests, Matplotlib, Seaborn, SciPy

Cloud Computing: Snowflake, AWS EC2, AWS S3, AWS Glue, AWS Lambda, AWS Step Functions, AWS Textract DevOps: Docker, Git, GitHub, GitHub Actions, Apache Kafka, Agile, Scrum, Kanban