NIKHIL AGGARWAL

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Junior in Computer Science. Proficient in Golang, Python, Java, TCP/IP socket programming.

EDUCATION

Northwestern University — Evanston, IL   *Sophomore*
McCormick School of Engineering   *B.S. in Computer Science, 2023*
- Relevant Courses in College:
    Object Oriented Design,   Discrete Structures,   Algorithms,
    Introduction to Linux,   JavaScript Programming,   Intro to AWS,
    Fundamentals of Computer System Software,   Assembly,
    Matlab,   Introduction to Database systems

SKILLS

- **Languages**: Golang, Python, Java, Javascript, C/C++ (basic), SQL (PostgreSQL)
- **Environment**: GoLand, Eclipse, IntelliJ, Visual Studio, CLion, Github
- **Software/Libraries Used:** Flask (python), React (Javascript), CVAT (ML annotation tool), Postman, Material UI, YoloV5/Darknet, AWS S3 buckets, boto3

PROJECTS

- Implemented transaction locking mechanism in DBMS program *(Java)*
    - Issued locks based on requested permission by each operator in a transaction
    - Created waits-for graphs to determine deadlocking
- TCP port monitoring software in GoLang using Viper for Configuration file reading
    - Wrote a port monitoring program that checked a multitude of hosts provided by the configuration files and assigned a status based on their response to the TCP connection
- *TCP Socket Server (Java)* - file transfer client and server application
    - Wrote a file transfer server that accepted 'GET' /'PUSH' requests from a client app
- MineSweeper game in Java as part of Northeastern computer class for OOD
    - Recursive algorithm to check if the selected piece has a mine near it, and if so assigns it a value.

EXPERIENCE

Dori.AI (Sunnyvale, CA) — *Software Developer Intern*   *June 2021 - Sep 2021*
Dori AI is a full-stack AI platform to build and deploy enterprise computer vision applications.
- Created a Python based Flask server with API endpoints that loads files from S3 and runs an inference model on the selected image/video data
- Developed a React based computer vision web-application and integrated with the Flask server to display annotated image/video media using the YoloV5 inference model
- Annotated image/video datasets using CVAT, trained and benchmarked Object Detection models, evaluated accuracy scores and performed human-in-the-loop analysis to poor performing inference results

YMediaLabs (Redwood City, CA) — *Software Developer Intern*   *May 2019 - August 2019*
YML is a digital product and design agency which specializes in creating mobile and web applications
- Worked with other developers to write a Java program using various API's to display messages on a wall of LED panels by scraping pixel RGB values and sending them over a UDP socket to a hardware controller for display.
- Programming in Java using the Processing IDE