Kinshuk Phalke

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EDUCATION

GEORGIA INSTITUTE OF TECHNOLOGY   Atlanta, GA | Aug 2021 - May 2024
Bachelors of Science in Computer Science   GPA: 4.0
Coursework: Data Structure and Algorithms, Honors Discrete Math
Clubs: GreyHat (CyberSec Club), dependently-typed (Programming Language Club)

WORK EXPERIENCE

NCR CORPORATION | Software Engineering Intern   Atlanta, GA | May 2022 - Aug 2022
- Worked in the Retail innovation team in building a micro-service in go to enable Cart service enabling shopping, checkout, transactions, taxes and payments.
- Worked on making API endpoints, connecting to other layers within to make tax calls and get price details and built a caching system to store recent calls.
- Worked on modelling data and made a CI/CD pipeline that performs a series of checks and publishes the Kubernetes Cluster onto Google Cloud Platform.
- Working on fleshing out the API endpoints and making the Kubernetes Cluster.

NOTITIA | Software Engineer   Atlanta, GA | Nov 2021 -
- Working with Full-Stack and NLP in building a MVP for a startup at Georgia Tech.
- Built a LDA model in Python and worked with tuning UMAP parameters and implemented a clustering algorithm using FAISS. Worked on UI of a WordCloud using React Flow.
- Optimized the front-end, back-end and Flask server, cutting time in front-end by 60% and 40% in MongoDB and back-end.

PROJECTS

SPEECHTOCODE ↗   Python, ReactJS, Node.js
Using AssemblyAI API, ReactJS and Node, SpeechToCode allows you to use your voice to write code in multiple languages to better help you understand and get started in learning a new language. Built a meta language parser that enables you to speak in a language close to English and creates a class based abstraction based on it, which is then easily translated to the language selected. Worked on designing the frontend and connecting the Parser to the frontend using a flask server.

DEUSCL ↗   Rust, Common Lisp
A memory-safe REPL built in Rust. Built a handwritten recursive descent parser and a visitor pattern dependent evaluator. Added a basic type inference, type checking and error handling system. Added dynamic evaluation of functional environment and parameters. Wrote a simple garbage collector and environment cleaner. Building a frontend in Web Assembly in Rust to enable users to use a web based simulation of REPL.

PUBLIXMON ↗   MongoDB, Express.JS, React Native, Node.JS, Flask, Node.js
Using a deep neural network, OpenCV, React Native, Flask, Node, and Solidity (to create NFT smart contracts), Publixmon creates an engaging social experience for retail shoppers. Users' purchase history is turned into unique, collectibles that can be traded with other users to earn savings and turn local stores into communities. Project Won the First Place at the NCR API Challenge at HackGT 8.

ENHANCE ↗   Python, Tensorflow, Keras
Created a Res-Net Implementation of the Super Resolution GAN Paper (https://arxiv.org/pdf/1609.04802.pdf) for Single Image Super Resolution. I worked with tensorflow in creating a Residual Blocks and Skip Connections and used the VGG-19 Model to calculate the Content Loss of the Model. The model achieved perceptible improvements in image quality on the DIV2K dataset with a downscale factor 4.

MENTAL HEALTH CHAT ↗   Redis, Docker, MongoDB, Express.JS, ReactJS, Node.JS, Socket.IO
A timed chat for people to share and talk about issues their having in relation with their mental health and help them overcome it. A message in the Redis database is set to expire in about 6 hours in order to encourage people to come out and discourage users calling each other out. Created a Dockerized App with a Redis Instance during development.

HACK-A-LANG ↗   Python
Worked with a team of 3 for the "hack-a-lang" event, to make the python implementation of the Lox Learning Language, complete with an implementation of dynamic functional environments, type checking, error handling, recursive descent parser and a visitor patter dependent evaluator. Also, spoke at the event about the evaluator, visitor patterns, environment creation and variable handing. Also, created exercise for the participants to work on to increase their knowledge.

SKILLS

Languages: Python, Rust, Go, JavaScript, Java, C, C++, C#, HTML/CSS, Bash, AWK, Solidity
Web & App Development: ReactJS, Express.js, Node.js, Flutter, Ionic Framework, React Native, Socket.IO, Redux, ReactFlow, Web3.js
Machine Learning: NumPy, Scikit-learn, Open AI Gym, Matplotlib, Pandas, Keras, NLTK, Gensim, FAISS, UMAP
Technologies: Git, MATLAB, Docker, Postman, LaTeX, SQL, MongoDB, Redis, Kubernetes