

Nihal Bhatnagar

US Citizen | 972-533-6923 | nihal.bhatnagar@rice.edu | [linkedin.com/in/nihal-bhatnagar](https://www.linkedin.com/in/nihal-bhatnagar)

EDUCATION

Rice University

Houston, TX

Bachelor of Science in Computer Science, GPA: 3.84 - Presidents Honor Roll, Cum Laude

May 2024

Coursework: Computer Systems(C), Parallel Programming, OOP and Design(Java), Big Data Tools and Analysis

Awards/Activites: Summa Cum Laude, Eagle Scout, 1580 SAT, Rice Computer Science Club, Rice Blockchain

TECHNICAL SKILLS

Languages/Frameworks: Java, Python, TypeScript/JS, C++, C, NumPy, SQL, React.js, Node.JS, PySpark

Technologies: Terraform, Kubernetes, Tensorflow, AWS Glue/EMR/Lambda, Apache Spark, Hadoop, Redux

EXPERIENCE

Palantir Technologies

Palo Alto, CA

Software Engineering Intern

May 2023 - Aug 2023

- Optimized network request infrastructure processes and created intuitive app UI with React/Redux in TypeScript
- Reduced system-wide network call size by 11% by implementing new request cache in GraphQL-like query system
- Integrated highly requested UI workflows in Gotham audio analysis/playback app, boosting user efficiency by 10%
- Enhancing accuracy of audio ML pipelines by 27% through integration of noise suppression model in backend
- Collaborated on fullstack 3D analysis tool to display interactive overlay on point-cloud data using three.js/WebGL

State Farm

Dallas, TX

Software Engineering Intern - Fullstack Systems Enablement

May 2022 - Aug 2022

- Implemented features on full-stack web tools and products aimed at orchestrating data flows across enterprise
- Automated upload of E2E pipeline test data, reducing Data QA from 4-6 hours to five minutes for 400+ devs
- Collaborated on REST API service with AWS API Gateway/Lambda and Express.js to facilitate workflow triggers
- Integrated automation tool into product with React/Redux based UI, reducing overall testing time by 30%

Software Engineering Co-Op - Cloud Infrastructure

Sep 2021 - Dec 2021

- Updated 6 team CI/CD pipelines to GitOps automated deployment and assisted 3 teams in implementing changes
- Created PyTest unit and integration tests for new Spark jobs, reducing product testing time by 50 minutes
- Built real-time dashboard monitoring of the validity of processed data schemas using PySpark and Grafana
- Deployed Kubernetes clusters in EKS to support integration testing across multiple lanes of data

Software Engineering Intern - Cloud Infrastructure

May 2021 - Aug 2021

- Engineered and modified ETL pipelines transforming legacy data and new transactions for downstream analytics
- Saved \$2,500/yr on AWS costs by using Apache Spark and Maven to implement schema consolidation feature
- Reduced team Glue job run times by 5% through data optimization scripts written in Scala and Python
- Utilized Terraform to deploy AWS Glue infrastructures, consolidating legacy data flows for millions of records

University of Texas at Austin, Computer Science Dept.

Austin, TX

Machine Learning Research Assistant

Jun 2020 - Nov 2020

- Led team of 3 to reduce run times in the motion planning of high degree of freedom arms using neural networks
- Reduced computation time of traditional planning algorithms by implementing TensorFlow and Keras CNN's
- Designed customized arm simulators using Klamp't and OMPL libraries to visualize and execute trained models
- Utilized Pandas library to generate and format 10,000 workspaces and optimize configuration-space calculation

PROJECTS

NLP for Fantasy Football Predictions | *NLTK, AWS, React.js/Bootstrap, SQL*

- Captured public sentiment on players to generate rankings for player performance weekly on site built with React
- Scraped Twitter and Articles via Tweepy/BeautifulSoup API; Fed data into custom ANN to generate rankings
- Created REST API in AWS; Utilized CloudWatch to trigger Lambda jobs and run models with Python

Scholastician.org | *React.js, PHP, MySQL, Bootstrap*

- Awarded **U.S. Congressional Commendation** from Van Taylor for helping 1000+ users during the pandemic
- Developed dynamic website aimed at matching tutor and student users nationwide for SAT prep
- Applied MySQL DB and PHP to create login system and store tutoring information, React/Bootstrap for frontend