# Nikhil Daehee Agarwal

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github.com/nikhildagarwal | linkedin.com/in/nikhildagarwal | nikhildagarwal-portfolio.com

#### **EDUCATION**

**Georgia Institute of Technology** 

M.S. in Computer Science, spec. Machine Learning

#### **Rutgers University-New Brunswick**

B.S. in Computer Engineering, GPA: 3.71/4.00 Secondary Academic Discipline - Computer Science Summa Cum Laude (Highest Honors), Rutgers HKN ECE Honor Society

#### **RELATED COURSEWORK**

Graduate Algorithms	Software Engineering	Deep Learning	Database Systems & Design
Data Structures	Machine Learning for Trading	Machine Learning	Discrete Structures
Network Programming	Artificial Intelligence	Operating Systems	Linear Algebra

#### WORK EXPERIENCE

**Software Engineer Intern** 

#### Paramount

**Software Engineer Intern** | Global Media Processing & Distribution Systems

- Optimized an NLP text correction pipeline, leveraging Pandas and AWS (S3, Lambda, Bedrock, SNS), resulting in an 80% reduction in end-to-end runtime
- Designed and implemented a text difference recognition and highlighting algorithm, enhancing user productivity by 40% •
- Engaged in Agile practices, including standups, sprint planning, and code reviews; contributed by making pull requests, resolving merge conflicts, and merging code

#### Barclays

- Software Engineer Intern | Group Financial Crime Operations & Client Onboarding
  - Developed and presented an ML-based troubleshooting system for the mobile banking app to over 300 colleagues and executives
  - Optimized data management in Microsoft SOL Server by normalizing datasets, streamlining information queries and updates
  - Deployed an updated client onboarding software, boosting KYC Analyst productivity by 20%

#### Makonis

Morris Plains, NJ

Atlanta, GA

May 2024

New York, NY

Whippany, NJ

June 2024 - August 2024

June 2023 - August 2023

Expected May 2026

New Brunswick, NJ

- December 2021 January 2022
- Designed and implemented a backend Java project that consolidates Profit & Loss Statements into a single financial statement
- Collaborated with team members in code review to refactor outdated code and enhance code readability

# PROJECTS

StudentX | Python, Flask, PyTorch, Docker, Firebase, Google Cloud Run

- Github | Live-Link Developed a peer-to-peer marketplace for Rutgers students with user authentication, direct messaging, and listing recommendations
- Utilized a Hugging Face transformer to generate text embeddings for a cosine similarity semantic search on the Store & FAQ page
- Implemented a KNN recommendation system that suggests similar items to users with similar user matrices

# **Spaceship Handyman** | Python, Numpy

- Github Developed A\* search algorithms, Bayesian Networks, and Markov Chains to help the AI bot (handyman) navigate the spaceship
- Trained and developed two neural networks with a combined 99.04% accuracy on a test dataset to help the bot complete image recognition tasks

# Notepad App "Infinote" | Python, SQL, Flask, Docker, Google Cloud Run

- Implemented a notepad, calendar, and password storage app using the Flask framework
- Utilized an SQLite3 database with data normalization for efficient querying and data cleanup

# Brew & Bites | Java, XML, Android SDK

- Created a cafe application using object-oriented & event-driven programming where users can browse and add items to a cart, view price totals, place orders, and view order history
- Implemented inheritance and polymorphism for all menu item classes (coffee, donut, etc.)

# VOLUNTEER WORK

# **Urban League of Morris County**

Mentor & Volunteer Math Teacher | Power Systems Institute

- Delivered personalized math tutoring to aspiring electricians from underprivileged backgrounds, fostering an environment that promotes diversity and equity
- Empowered candidates by building their confidence in math, helping them achieve academic success and overcome educational barriers

# SKILLS

Programming: Python, Java, C++, JavaScript, C, SQL, Matlab

Frameworks & Libraries: PyTorch, Flask, NumPy, Pandas, Spring, Scikit-Learn

Technologies & Tools: AWS, Git, Google Cloud Platform, Linux, Docker, Jira, Confluence, Firebase, Gradle, Jupyter Notebook, Ubuntu Soft Skills: Excellent communication and organizational skills, problem-solving, critical thinking, and teamwork

# Github | Live-Link

# <u>Github</u> | <u>Google Play</u>

Morristown, NJ

May 2018 - August 2020