# Rohan Varshney

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## Education

**Georgia Institute of Technology,** Atlanta, GA                                                              *Graduated May 2021*
- B.S. in Computer Science (Modeling/Simulation & Intelligence Concentrations)
- Relevant Coursework: Data Structures & Algorithms, Object-Oriented Programming, Machine Learning, Design & Analysis of Algorithms, Game AI, Computer Simulation, Applied Combinatorics, Differential Equations, Discrete Math, Linear Algebra

## Experience

**Lyft, Software Engineer**, New York City, NY                                                              **July 2021 – Present**
- Drove the migration of data wrangling from CJSON to Google's Protobuf format for various Go services across the Data Platform's analytics event components by pioneering new on-the-fly (un)marshal library functionality and refactoring all of Lyft's 450+ services for compatibility, impacting 2400+ analytics events & saving up to 15% CPU utilization per service
- Utilized a native schema-retrieval API service to adjust the methodology used in the analytics events proxy sidecars of all Lyft services that emit events to reduce their memory footprint by up to ~80%, thereby reducing infra provisioning costs
- Collaborated with data-quality team to introduce real-time row-level data quality checks on events, enabling increased data verity/fidelity for customers & the ability to validate events within the pipeline instead of offline
- Enabled a fleet-wide migration from Kinesis to Kafka for durable analytics events pipeline by rearchitecting the new library functionality & utilizing the schema API aforementioned to be compatible with MSK, and solely handled the rollout of this functionality across all events & services with custom dashboard development & extensive monitoring

**Microsoft, Software Engineering Intern**, Redmond, WA (Virtual)                              **May 2020 – August 2020**
- Extended an internal chatbot that resides in Microsoft Teams with 8 new deployment-related features via an architecture that allowed the XDeployment team greater bot utilization, cutting down Time to Investigate & Response for on-call to answer FAQs for clients regarding Azure Storage deployments & tenant-based information by up to 4-6 hours
- Achieved end-to-end integration for all coded features using the backend command client of KQL functions in the XStore connection of Kusto, appropriate response objects coded in C#, & the frontend dialogs that handle user input & parameter validation through extensive communication & assistance from a team in Shanghai (EST+12:00)

**Lyft, Software Engineering Intern**, San Francisco, CA                                          **January 2020 – May 2020**
- Invented 10 prototype dashboards using Mode Analytics by amalgamating Presto SQL queries, Python Notebooks, & HTML/CSS in order to generate insights about the performance of various Basemap quality metrics, thereby increasing confidence in the adoption of newly updated maps as part of the Scorecard project
- Engineered novel heatmaps using (geo)pandas, road network segments as well-known text (wkt) geometries, & Geohash weights through DataFrames to provide spatial visualization of the quality metrics on a region-level, allowing for immediate validation of metric progress & pertinent map changes made in OpenStreetMap (OSM)
- Enhanced & refactored the existing codebase to handle data saving of the map quality metrics using multiple variable partitions to S3 & Apache Hive for any queryable purposes across the organization

**Amazon.com, Software Development Engineering Intern**, Seattle, WA                    **May 2019 – August 2019**
- Created multiple new features (autocomplete, bookmark migration for favorites) for the Amazon Enterprise Access (AEA) Android app for AWS that improved usability & robustness for the 5500+ (and exponentially growing) unique monthly Amazon employees (as of August 2019) in accessing corporate services from their mobile devices
- Integrated dynamic service catalog retrieval to substantially reduce the onboarding duration for service access from 1 month to near real-time (less than 1 hour) by levying multiple AWS services (API Gateway, Lambda, DynamoDB, SNS, S3) to remove manual dependencies across multiple project packages & automate the process

**Manhattan Associates, Software Engineering R&D Co-Op**, Atlanta, GA                 **January 2019 – May 2019**
- Directed the creation of an organizational framework for Call Center UI extensibility through samples created using Angular in a StackBlitz IDE, enabling easy integration of features & extensions into test client environments

**Raytheon, Software Engineering Intern**, Indianapolis, IN                                      **May 2018 – August 2018**

## Skills

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| **Languages:** | Java/Kotlin, Python, Golang, C#/C, SQL, JavaScript/Typescript, HTML & CSS, MATLAB, Bash, Terraform |
| **Technologies:** | Visual Studio, Android Studio, JetBrains IDEs, Jupyter/Python Notebooks, Angular, Amazon Web Services, Docker, NumPy & (Geo)Pandas, Postman, Node.js, StackBlitz, Wireshark, LaTeX, Slack |