

# Saadh Ahmed

## EDUCATION

### GEORGIA STATE UNIVERSITY

Atlanta, GA

*Bachelor of Science in Computer Science + Additional Study in Biochemistry*

*Aug 2018 - Dec 2021*

- GPA: 4.18/4.30
- Valedictorian of Fall Class of 2021 (Kell Award)
- Relevant Coursework: Data Structures, Algorithms, Data Science, Database Systems  
Operating Systems, Discrete Math, Computer Architecture, Mobile App Development

## PROFESSIONAL EXPERIENCE

### GOOGLE

Atlanta, GA

*Software Engineer*

*Aug 2022 - Present*

- Full-stack engineer in Google Play Analytics developing internal tooling used by data scientists and analysts to visualize, anonymize, and store Google Play data.
- Created web-based tooling using Angular and D3 to create visualizations such as Sankey, Sunburst, and Markov diagrams from sequence user data internal to Google Play. This platform is used by the entirety of Google Play. Optimized platform by developing cache protocol using SQL tables to return recently run queries. Saves over 30 SWE hrs per day.
- Developed a data anonymization pipeline to automatically take internal Play user data and make it privacy compliant. Additionally added back-end support for taking user input SQL queries using gRPC and internal Java frameworks to run them in real time safely.

### MICROSOFT

Redmond, WA

*Software Engineer Intern*

*May 2021 - Aug 2021*

- Worked as a backend-engineer in the Microsoft Office 365 team.
- Used C# and ASP.NET frameworks to allow access to help search from various non-english language packs of Microsoft Office programs.
- Utilized Azure Cloud apis to translate non-english queries in real time from Office 365 programs and send them to internal APIs to return help results. Help search usage was up over 40% as a result of this change.

### NCR VOYIX

Atlanta, GA

*Software Engineer Intern*

*Jun 2020 - Jan 2021*

- Worked as a Machine Learning engineer in the cash management team.
- Replaced the existing regression algorithm with an Azure AutoML pipeline that automatically feature engineers time series data of ATM withdrawals to forecast ATM usage in various locations. New model was over 95% accurate with withdrawal predictions, leading to increased confidence in customers placing money orders well in advance.
- Intern project led to full on adoption by the cash management team and resulted in a [company patent](#).

## RESEARCH EXPERIENCE

### HARVARD MEDICAL SCHOOL

Remote

*Student Researcher*

*Jan 2021 - Present*

- Currently working to simulate patient/staff interactions and flow in hospitals using fluid dynamics equations.
- Worked with a team of physicians to develop a machine learning framework using AzureML to accurately predict emergency department resource allocation during triage. Published in the [American Journal of Emergency Medicine](#) and presented at [Society for Academic Emergency Medicine conference](#).
- Worked with a team of physicians to develop an ARIMA time series forecasting model to predict overdosing deaths across America. Paper accepted for publication and currently in press at [Conduct Science Health Innovation Journal](#). Poster was presented at the [ASAM Annual Conference](#) and [Far West Division GME Research Day Conference](#).

## COMMUNITY OUTREACH

### TEALS INSTRUCTOR

Atlanta, GA

*AP Computer Science Lecturer - Dunwoody High School*

*Aug 2022 - Present*

- Primary lecturer at Dunwoody High School for AP Computer Science A, Introduction to Java.
- Involves creating student lesson plans, exams, quizzes, projects, and delivering in-person lectures in class.
- Resulted in AP Exam attempts increasing by over 60% and increase in passing grades of a 3+ by over 20%.

## SKILLS

- **Technology:** Apache Spark, ASP.NET, Angular, SQL, gRPC, Databricks, Dask, TensorFlow, AzureML, GCP BigQuery, Pandas, Flutter, React
- **Programming Languages:** Python, Java, TypeScript, JavaScript, C#, C, Dart, PHP