Amaan Marfatia

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EDUCATION

Georgia Institute of Technology   **Atlanta, GA**
Candidate for B.S in Computer Science and Mathematics   *Aug. 2017 – April 2021*
- Concentrations: Information/Internetworks, Systems and Architecture   GPA: 4.0
- Extracurriculars: Programming Team, Math Club, Chess Club
- Key Classes: Data Structures and Algorithms, System and Networks, Design and Analysis of Algorithms, Advanced Operating Systems, Computer Networking, Information Security, Processor Design

EXPERIENCE

Amazon   **Seattle, WA**
Software Development Engineer   *May 2020 – Aug. 2020*
- Worked on the X-Ray CloudWatch team and used Java and XML.
- Created an internal service to export X-Ray distributed tracing data in the New Relic format.
- Used DyanmoDB, S3, CodeDeploy, and EC2 to run and deploy service.

Match Group, INC   **Dallas, TX**
Full Stack Software Engineer   *Jan. 2019 – May 2019, Aug. 2019 – Apr. 2020*
- Worked on the Plus1 Labs team to create Ship, an Android dating app with over 100,000 installs, from the ground up.
- Used Kotlin, XML, Ruby, SQL, and Android architecture components to form reactive screens and UI.
- Added multiple screens by building custom UI components and API endpoints and by working with the Room database.

Bank of America   **Jersey City, NJ**
Technology Summer Analyst   *Jun. 2019 – Aug. 2019*
- Worked with the Independent Price Verification team to analyze and aggregate data from stock traders.
- Modernized Python files to transition the whole project from using Python 2.7 to 3.7.
- Updated and fixed over 750 failing unit tests to run in memory and in parallel.

The Rainmaker Group Ventures, LLC   **Alpharetta, GA**
Technical Associate Intern   *Jun. 2018 – Aug. 2018*
- Worked on the GuestRev software, a revenue management system for hotel, casinos, and resorts, using the ASP.NET MVC framework, SQL, and JavaScript.
- Learned C# and SQL to add a user preferences table to the database so that dates would be formatted by using the server-side user preferences and HTML5 local storage.

PROJECTS

Sparse Matrix Multiplication Research
Multiply Sparse Matrices in CSR Format with FPGAs
- Used HLS and FPGAs for hardware acceleration to efficiently multiply sparse matrices that are received in a compressed format through an AXI bus.
- Optimized multiplication by using metadata to quickly process dot products of arrays in parallel.
- Achieved a 93% speedup from original code with regards to latency per non-zero value while also decreasing dynamic power consumption by 3%.

Firefox Preview
Mozilla's Open Source Android Browser
- Contributed to Mozilla's open source Fenix project. Used Kotlin to automatically set the user's keyboard to private mode when it is used in private browsing so that typing history is not saved.
- Used XML to flatten out layout hierarchies of several UI elements such as the Quick Action Bar, Share Sheet, and Tabs Header so that app can have better performance.

SKILLS / LANGUAGES

Programming Languages: Java, Kotlin, C, C++, Python, SQL
Technologies: AWS, Android Development, Web Development, Git, GitHub, Jira, Jenkins