VARUN RAVICHANDRAN

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Education

Rutgers Honors College, School of Engineering   New Brunswick, NJ
B.S. Electrical and Computer Engineering; B.A., Computer Science; Minor, Economics   *May 2020*
- GPA: **4.0/4.0 (Presidential Scholar)**
- *Relevant Coursework:* Data Structures, Systems Programming, Computer Architecture, Operating Systems, Embedded Systems
- Technical Skills:
  - Proficient: **Java, C, Go, MongoDB, HTML/CSS/JavaScript, Git**
  - Introductory: **Python**, **Rust, SQL**, Firebase, Android Studio

James Caldwell High School   West Caldwell, NJ
- GPA (weighted) 100.61/100 (Class Rank: 1/203)   *June 2016*

Work Experience

MongoDB, Inc.   New York, NY
Software Engineering Intern   *May 2019 – Aug. 2019*
- **Broadened** the Business Intelligence (BI) Connector's MySQL to MongoDB translation coverage by **implementing** translation for ~17 frequently-issued customer **MySQL** queries to the **MongoDB aggregation language**
- **Redesigned** and **refactored** the BI Connector's data type reconciliation scheme in order to guarantee consistent input argument types to MySQL functions in queries prior to translation
- Strengthened the BI Connector's testing suite by **debugging** faulty race detector tests and writing new integration tests to cover newly translated MySQL queries
- Collaborated with 6 other engineers on a company hackathon project that directly served as a **proof-of-concept** for a new product (see additional details under "Projects")

AT&T   San Ramon, CA
Software Development Intern, Technology Development Program   *June 2018 – Aug. 2018*
- Collaborated with a software engineer to design a chatbot using **Java** to communicate with a workflow engine backend
- Deployed various features for the chatbot, including a search engine, basic language processing, and a **RESTful** backend to **authenticate** ~250,000 employees within AT&T and support over 100 workflows via **HTTP** requests to the API
- Selected as the lead developer for an Agile Scrum team developing a full-stack data analytics dashboard built for a nationwide AT&T intern coding challenge
- Designed **JavaScript**-based algorithms to simplify over 200,000 data points into **Bootstrap** progress bars depicting the general performance of AT&T's customer service

Rutgers Wireless Information Network Laboratory (WINLAB)   Piscataway, NJ
Undergraduate Research Intern   *Feb. 2017-May 2018*
- Developed front end of a web application using **HTML and CSS** capable of receiving and storing data about gestures that was widely used in gesture-based studies in the laboratory
- Collected and analyzed the data coming through the web application from 2 research studies by integrating **Google Firebase**
- Partially implemented a gesture-based keyboard as an Android application designed to track coordinates of each gesture

Projects

BIC^-1   *July 2019*
- **Scoped** and **engineered** a MongoDB to SQL transpiler proof-of-concept for a MongoDB hackathon. **Developed** crucial features for a **Rust**-based SQL abstract syntax tree used to represent the generated SQL queries
- **Implemented** translation from the $group stage in the MongoDB aggregation language to SQL's group clause
- **Designed** the manner in which the transpiler would translate write queries and **implemented** translation from $update to SQL's update clause

Extracurricular Activities

Rutgers Enactus   New Brunswick, NJ
Project Manager, Popcorn for the People – May 2018 to Present   *Sept. 2016 - Present*
- Developed a new strategy and direction for Popcorn for the People with its leadership and delegated necessary tasks to finance and operations committees, resulting in winning a grant that earned $20,000 for the business

Honors and Awards

Best Overall – AT&T Interns Coding Challenge   *August 2018*
- Competed against 30 other teams of AT&T interns nationwide and got the top prize for our full-stack data analytics dashboard

Northeast Regional Champion, Rutgers Enactus (x2)   *March 2017, March 2018*
- Created attractive annual reports that were presented to judges and contributed to team's first-place standing two years running