Samantha Yu

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Technical Work Experience

Google | Software Engineering Intern: **C++** May 2019 - August 2019

- Improving the robustness of the SQL query engine, F1 Query, to support long-running queries
- Working on the F1 Stretch Asynchronous API so client library can disconnect from the F1 Server
- Handling the disappearance of query coordinators due to query cancellation or Borg eviction

Electronic Arts | Associate Software Developer Co-op: **C++** Jan 2019 - April 2019

- Drove the development of in-game events, Chel Challenges, in the AAA video game, NHL 20
- Created server RPCs and modified client services to support this new feature in 5 online modes
- Collaborated with production, QV and UI teams to resolve bugs on both server and client sides

Google | Software Engineering Intern: **C++** May 2018 - August 2018

- Enforced hypertargeting prevention for the DoubleClick Bid Manager with Spanner and Bigtable
- Researched various log processing pipelines and analyzed the accuracy of ad traffic estimation
- Wiped out data for users that opt out of personalized ads with data processing pipeline for GDPR

Tableau | Software Engineer Intern: **Python** Jan 2018 - April 2018

- Developed a Branch Incident Manager web application with Python, TypeScript, React, and AWS
- Aggregated tedious actions like branch closures, Slack notifications, and post-mortem creation
- Improved Tableau's build system, such as fixing test results parsing in the event of a timeout

Google | Engineering Practicum Intern: **C++** May 2017 - August 2017

- Investigated the worst cases of liquid sharding in a Big Data processing system, Cloud Dataflow
- Created a liquid sharding simulation to quickly evaluate algorithms concerning data imbalance
- Integrated Gantt charts and production metrics within the discrete event simulation model

Technical Projects

Automated Plant Watering System Oct 2017 - Dec 2017

- Received student choice award for the best project within this embedded systems class
- Gathered moisture and temperature sensor readings using ESP8266 boards (WiFi microchips)
- Implemented a PID controller for BeagleBone to determine when to turn water pump on and off

erdos: Comprehensive Math Chat Application Nov 2016 - Dec 2016

- Rendered messages with mathematical equations and symbols using the KaTeX JavaScript library
- Enabled users to query messages to solve and graph equations with the Wolfram Alpha API
- Debugged several unexpected problems like duplicate chatrooms and unsorted messages

Education

Simon Fraser University Sept 2015 - June 2020

- Bachelor of Science: Computing Science Major | Top 15% of CS Majors at SFU
- **Relevant Courses:** Model-Based Computer Vision (CMPT 414); Embedded Systems (CMPT 433)

Technical Skills

- **Languages & Libraries:** C++, Python, Java, C, LaTeX, OpenCV, HTML/CSS, MATLAB, JavaScript