# **Junhson Jean-Baptiste**

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#### Education

Binghamton University, State University New York, Watson School of Engineering

Binghamton, NY

Master's of Science in Computer Science

December 2021

GPA: 3.27/4.00

Binghamton University, State University New York, Watson School of Engineering

Binghamton, NY

Bachelor's of Science in Computer Science

December 2020

Major GPA: 3.21/4.00

Skills

Languages: C++, Rust, Python, HTML/CSS (proficient); JavaScript, C, Java, SQL, Sass (familiar) Tools/Software: Git, Vim, VSCode, Linux, MongoDB, Atom, PyCharm, Eclipse, Heroku, Make, GDB

Professional Experience

Teaching/Course Assistant

**Binghamton University** 

Binghamton, NY

August 2020 - December 2021

- Grade assignments and host weekly lab sessions/office hours to help students understand architecture/programming
- Courses Taught: Data Structures, Computer Architecture, Systems Programming

MongoDB

Manhattan, NY

Software Engineering Intern - Sharding Team

June 2021 - August 2021

- Restructured metrics reporting for operation that changes shard key without downtime or data loss (Live Resharding)
- Streamlined functionality and performance for computation of destination shards by introducing a new router class
- Collaborated on and co-presented a talk detailing the motivation for resharding and work delivered over the summer

Software Engineering Intern - Query Team

June 2020 - August 2020

- Updated MongoDB Query Language (MQL) to allow storage of field names prefixed with dots (".") and dollars ("\$")
- Contributed to development of an expression that facilitates retrieval of newly allowed field names
- Presented a talk describing product trade-offs query validation removal for updates made to MQL

### **Citigroup ICG (Institutional Clients Group)**

Manhattan, NY

Summer Technology Analyst

June 2019 - August 2019

- Developed Python functionality to pull regression test data from various SQL databases
- Increased team productivity with scripts that automate error reporting and regression testing
- Delivered an end of summer presentation, outlining the work and its impact to engineers and senior management

#### Project Experience

## Major Key: Key-Value Datastore

Hempstead, NY

December 2020 - Present

January 2020 - May 2020

August 2021 - December 2021

Software Developer

Software Developer

- Compose a design document with plans and outline for a distributed (sharded and replicated) key-value datastore
- Build datastore based on RAFT algorithm in Rust using BSON, protocol buffers, and TCP networking libraries

## Image Encoder/Decoder

Binghamton, NY

• Designed a program using Rust to decode/encode messages into PPM images while maintaining photo contents

- Leveraged Rust's "Fearless Concurrency" features to accelerate program speed via multithreading over a folder of images
- Wrote a JavaScript web client to upload photos and transfer picture contents via WebAssembly for encoding/decoding

#### Leadership Experience

HackBU

Secretary

Binghamton, NY

• Assist with planning and executing weekly technical workshops, social activities, and an annual hackathon

- Maintain records of proceedings for general organizer meetings and senior organizer meetings
- Provide guidance to students from varying years and majors about programming, internships, and course success