

NICK RUTIGLIANO

✉ rutigliano.nick@gmail.com 🌐 rutigs.github.io

in nick-rutigliano 🐙 rutigs

SKILLS

PROGRAMMING: Go, Python, C, C#, Java, C++, Erlang*

TOOLS/Frameworks: Git, .NET, Django

OTHER: Linux, Bash, SQL

EDUCATION

University of British Columbia

Bachelor of Science Computer Science

June 2018

EMPLOYMENT

Microsoft

Software Engineer Intern

Jan 2016 to Aug 2016

- Helped fix issues with the distributed content service and service bus that handles the data generation for the four client applications that need it.
- Contributed in maintaining, deploying, and configuring several cloud services.
- Maintained in-house tooling for logging management and configuration encryption/decryption.
- Worked on accessibility features including UI metadata, navigation and narrator on a Universal Windows Application to meet the Microsoft Accessibility Standards.
- Developed a time shifting testing tool to help ease testing application state and state transitioning as well as time gated user features.

PROJECTS

Distributed Key Value Store

Apr 2017

- Designed and developed 2 versions of a multi-node key value store written in Go required to provide the Atomicity, Consistency, and Independence in ACID.
- Planned and created the first version to use strict two phase committing to meet the ACI constraints.
- Created a second version using blockchain technology via proof of work SHA256 hashing to integrate transactions into the store.

SkrTOS

Dec 2016

- Built a Minix-style operating system kernel in C.
- Added various features including memory management, process multitasking and scheduling, signals, and device drivers.

Berkeley

Aug 2016

- Made an implementation of the Berkeley algorithm for clock synchronization in distributed systems.
- Built the project in Go using communication over UDP for both master and slave.

Netcat

Nov 2015

- Recreated the Unix networking tool for testing network connections over TCP.
- Implemented the application in C in 2 ways: one using traditional posix threads and another using the poll() system call to manage socket file descriptors.
- Added a new option for the server mode to allow multiplexing up to 10 connections.

Dns Resolver

Oct 2015

- Created a DNS resolver in Java for resolving domains to IP addresses.
- Followed the IETF RFC 1035 protocol for handling queries and responses.

HipHopHeads Polls

Aug 2015

- Designed and implemented a polling application for the community at reddit.com/r/hiphopheads with thousands of subscribers.
- Developed the service in python/django along with postgresql, css, js, bootstrap, and jquery.
- Provided a mobile friendly platform by designing for mobile first, optimizing images, using available CDN's, and only loading iframes on user clicks.

VOLUNTEERING

UBC Computer Science Student Society

Sep 2015 to Current

- Helped manage logistics, supplies and events for Computer Science students.