

Kevin Jun

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EDUCATION

University of Chicago

Class of 2021

M.S. – Computer Science || GPA: 3.71

Relevant Coursework: Algorithms, Bioinformatics, Cloud Computing, Computer Architecture and Systems, Distributed Systems, High Performance Computing, Parallel Programming*, Applied Financial Technology*, Functional Programming*, Compilers*
*to be taken in subsequent quarters

Northwestern University

Class of 2015

B.A. – Economics and Political Science

Relevant Coursework: Calculus, Econometrics, Statistics

EXPERIENCE

Wolverine Trading

Chicago, IL

Software Engineering Intern || C++, C#, XAML

June 2020 – August 2020

- Developed and designed application to monitor health of and issue commands to order-routing servers, significantly improving support team workflow and providing framework to expand application to fit all server types
- Created new Google ProtoBuf message schema to populate application UI configurations, issue commands and responses, and pass status messages
- Designed front-end UI and extended back-end multithreaded message passing architecture, wrote documentation, and communicated with Support and Development teams to identify workflow bottlenecks, gather feature requests, and demo application

Conversant

Chicago, IL

Senior Analyst – Analytics || SQL, Python, R, Excel

October 2017 – October 2019

- Managed portfolio of five clients, guiding account strategy via custom analyses and growing revenue 2x from \$15MM to \$30MM over duration of management
- Developed PostgreSQL function to automate reporting for largest retail client providing aggregated data for Tableau-based BI platform, decreasing manual reporting time by 100%
- Built and deployed statistical significance testing framework for incremental campaign performance across 40% of clients and 90% of Tier 1 (>\$5MM in revenue) clients, leading to increased awareness of client health and identification of performance contaminants

The Allstate Corporation

Northbrook, IL

Management Consultant

May 2017 – Oct 2017

- Developed Go-To-Market strategy to increase Allstate multicultural market share, leading consumer insights research and creation of organizational structure for multicultural task force; left Allstate before strategy was deployed

PROJECTS

Smith-Waterman on Numba (2020)

Python, Numba, CUDA

- Speedup of the Smith-Waterman sequence alignment algorithm using Numba on CPU and GPU (CUDA)
- Achieved speedups over serial implementation of 272x on CPU Numba and 2,304,163x using GPU (CUDA) on an Nvidia Tesla K80

Raft, Raft, Raft (2020)

Python, Flask

- Multithreaded and distributed Python implementation of the Raft Consensus and Leader Election Algorithm capable of coordinating the distributed consensus of anywhere from 2-16 nodes, dependent on system architecture and threading
- Fully-fledged message passing and message-broker architecture similar in application to RabbitMQ

Cache Emulator (2020)

Java, C++

- Computer emulation of Von Neumann architecture containing CPU, RAM, and L1 cache – capable of high-performance computing testing algorithms such as daxpy, matrix multiplication, and block matrix multiplication
- Includes options for different read and write miss policies, replacement policies, and RAM/cache/block sizes to test and optimize algorithmic performance
- Matrix multiplication of two 512x512 matrices using emulated L1 cache of full associativity runs in 7 minutes

SKILLS & INTERESTS

Languages: Java, C/C++, C#, Python, SQL, R, HTML/CSS

Tools & Frameworks: AWS, Docker, Flask, Postgres, CUDA, MPI, OpenMP

Interests: HPC, Distributed Systems, UI/UX, Film, Music, Cooking, Travel, Sustainability, My dog