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Objective

I'm actively seeking a Summer 2021 Software Engineer Internship opportunity. My current interests lie in computer systems, with past internships and projects focusing on backend development, distributed systems, and cloud computing.

Education

Carnegie Mellon University - School of Computer Science | Pittsburgh, PA ***12/2021***
Master of Computational Data Science | Systems Concentration GPA: 4.00
Relevant Coursework: Storage Systems (In-progress) | Introduction to Computer Systems

New York University - Tandon School of Engineering | New York, NY ***05/2020***
Bachelor of Science in Computer Science | Minors: Mathematics & Game Engineering *GPA: 3.93*
Relevant Coursework: Parallel and Distributed Systems | Unix System Programming | Databases | Machine Learning
Awards: Myron M.Rosenthal Merit Award 2019 - 2020 | Dean's List 2016 - 2020

Technical Skills

Programming Languages: C++ | C | Python | Golang | Java | JavaScript | Haskell | Prolog | bash
Machine Learning Frameworks: PyTorch | Keras | NumPy | Pandas | Scikit-learn | NLTK | LaTeX
Development Tools: Protocol Buffers | Bazel | Docker | Cassandra | Kibana | NATS | Selenium | OpenCV | OpenGL | git

Work Experience

Software Engineer Intern - Back-end Development | Genesis Global Trading ***New York, NY | 05/2020 - 08/2020***
- Improved database schema and updated symbol parsing algorithm to populate database with new market data in Golang, and equipped traders with comprehensive data to analyze spot and derivatives markets and perform algorithmic trading
- Developed a reliable data streamer of an exchange on a second-by-second basis for all provided markets (Bitcoin, LTC, etc)
- Designed and developed an LRU data structure to maintain a dynamic list of 100 tradable markets for real-time trading

Software Engineer Intern - Full Stack Development | Goldman Sachs ***Hong Kong | 06/2019 - 08/2019***
- Developed a backend micro-service to track business approval status across an in-house web management system in Java
- Revamped and implemented a business-oriented workflow that communicates with backend services of the application

Undergraduate Independent Researcher | New York University Wireless Lab ***New York, NY | 02/2019 - 05/2019***
- Conducted a Multiple Sclerosis Lesion Segmentation research project supervised by Professor Yao Wang
- Built a 3D U-Net structure to process Magnetic Resonance Imaging (MRI) data in Python with Keras framework
- Implemented a sliding window approach to generate unique batches of training samples from only 15 available images
- Utilized Dice Score loss function to achieve a model with 71% cross-validation accuracy

Research Assistant | New York University Composite Materials and Mechanics Lab ***New York, NY | 06/2017 - 08/2017***
- Analyzed low-contrast images with histogram and used OpenCV techniques to upsample images
- Implemented a pixel-wise comparison algorithm between sample images and their corresponding reference images
- Published a paper in *Advanced Engineering Materials* titled "Embedding tracking codes in additive manufactured parts for product authentication" (https://doi.org/10.1002/adem.201800495)

Teaching Assistant | New York University Computer Science Department ***New York, NY | 09/2017 - 05/2020***
- Led Object-Oriented Programming in C++ from 2017 to 2019, and Unix System Programming in C in 2020
- Taught lab materials and assisted debugging for >170 students, held office hours, and graded assignments

Projects

Rank Pairing Heap | New York University - Algorithms 2 Course Project ***04/2019***
- Visualized Rank Pairing Heap (a heap data structure with optimal time complexity) in JavaScript with Cytoscape

Song List over Time | New York University - Distributed Systems Course Project ***12/2018***
- Built a distributed backend system from scratch and a frontend system in Golang with Iris web framework
- Implemented the reliable replica multi-thread synchronization strategy - Raft consensus algorithm

Honors and Awards

19th Place out of 65 Teams | 2019 ACM / ICPC Greater New York Contest ***10/2019***
- Reached the regional round of the largest international programming competition for college students
- Placed 2nd out of all 5 New York University student teams