Samuel Naser

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Education

Northwestern University Evanston, IL
BS, Computer Science, 3.88 GPA *September 2017 to June 2020*
Relevant coursework: Data Structures and Management, Human Computer Interaction, Introduction to Computer Systems, Introduction to Computer Graphics, Machine Learning: Foundations and Algorithms, Operating Systems, Distributed Systems

University of Louisville Louisville, KY
BS, Computer Science, 4.0 GPA *August 2016 to August 2017*
Relevant coursework: Object Oriented Design with Java, Introduction to Programming Languages (C), Data Science, Calculus II, Calculus III, Differential Equations

Work Experience

Google Sunnyvale, CA
Software Engineering Intern, Cloud Services Platform *September 2018 to December 2018*

- Leveraged the OpenCensus framework to add distributed tracing to Kubernetes object lifecycles; made it possible to visualize these traces in Stackdriver, Zipkin, and various other trace backends
- Authored Kubernetes Enhancement Proposal (KEP) which put forward a model for distributed tracing in Kubernetes (titled *"Leveraging Distributed Tracing to Understand Kubernetes Object Lifecycles"*)
- Created mutating admission webhook which injects trace context into Kubernetes objects, and which was adopted as an official sig-instrumentation project
- Utilized this custom trace tooling to isolate bugs in production Google Kubernetes Engine (GKE) clusters

Amino Payments Philadelphia, PA
Software Engineering Intern *June 2018 to August 2018*

- Processed high-throughput advertisement transaction data with Apache Kafka and Apache Samza, reassembled the digital transaction chain in real-time, deployed data-streaming backend onto AWS infrastructure
- Migrated from JSON to redesigned Apache Avro models at each step of our Java data-streaming backend, dramatically increased message processing speeds and improved code structure with this refactor
- Developed and maintained critical Python utilities which transformed outputs from our data pipeline into a format usable by our API, configured CircleCI test containers and wrote integration tests for these utilities

Research Background

Design, Technology, and Research (DTR) Lab Northwestern University
Undergraduate Researcher *January 2018 to Now*

- Pioneering systems that allow users to contribute to physical tasks, such as picking up packages or delivering food, with minimal disruption to their existing routines
- Leverage Node.js, Swift, and MongoDB to implement an application stack that allows users to post food order requests, and intelligently notifies users passing restaurants to pick up the order if it's conveniently on their route

Knowledge Discovery and Web Mining Lab Louisville, KY
Undergraduate Researcher *November 2016 to August 2017*

- Implemented novel recommendation engine in Python with the Django framework that analyzed user news consumption patterns and recommended articles which negated political biases
- Designed and implemented mobile and web interfaces for user studies using Typescript and AngularJS with the Ionic cross-platform framework to collect data and test models

Selected Projects

Slackdog – *Real-time analytics platform for the Slack messaging service* Philadelphia, PA
FareShare – *Platform which enabled users coordinate to split ride-share costs* Evanston, IL
The Glass Capitol – *Political site connecting citizens directly to their representatives* Louisville, KY