

# Srivishnu Ramamurthi

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## EDUCATION

### University of California, Los Angeles

*Bachelor of Science in Computer Science*

Los Angeles, CA

Sep. 2016 – Dec. 2020

### Foothill Community College

*Associates of Science in Computer Science*

Los Altos Hills, CA

Aug. 2014 – Jun. 2016

## EXPERIENCE

### Software Engineer - Performance

May. 2023 – Present

*Retool*

*San Francisco, CA*

- Leading the prototyping and implementation of Runtime V3, optimizing performance by compiling Retool's proprietary language to JavaScript
- Recognized as the runtime expert and founding member of a weekly study group that educates others on its use
- Optimized the multipage feature by implementing lazy loading for better performance
- Developed presence functionality for collaborative editing in multiplayer

### Software Engineer - Runtime

Feb. 2022 – Mar. 2023

*Airkit*

*Redwood City, CA*

- Architected and implemented the code completion engine for Airkit's proprietary language, Aircscript
  - Worked with marketing to publish a blog detailing the work ([link](#))
- Overhauled Aircscript by adding variable level metadata to allow for PII, PCI, and HIPAA auditing in Airkit apps
  - Worked with marketing to publish a blog detailing the work ([link](#))

### Software Engineering Intern - AWS Forecasting

Jul. 2021 – Sep. 2021

*AWS*

*Seattle, WA*

- Designed a REST API to retrieve configuration file schemas and make accessible to external teams
- Architected a model to automatically expand and dump said configuration file schemas into S3 after processing each scenario
  - Wrote a design document and led numerous meetings with internal and external teams to finalize the model design
  - Utilized the concurrency feature of AWS step functions to efficiently process tens of thousands of data points

### Database Engineering Intern - Devops / Compilers

Jan. 2021 – Jul. 2021

*Ocient*

*Chicago, IL*

- Created a script to allow visibility into build times across the code base and identify problem files
  - Programatically created a dependency graph based on all include files and designed an algorithm to rank files by impact
- Added an AllowSelectStar option to security groups that allowed for better access control
  - This required adding multiple checks to the abstract syntax tree to cover for all edge cases that may occur within the SQL syntax

### Full Stack Software Engineering Intern

May. 2020 – Sep. 2020

*Bliss Point Media*

*Santa Monica, CA*

- Designed a full stack application to attribute and visualize impression data based on the associated HTTP referer utilizing Node for the back-end and React and Sassy CSS for the front-end
  - This required normalizing billions of impressions from Redshift via a Java job running in AWS Batch
  - Devised a linked list structure in PostgreSQL to minimize modifications to the attribution database on update
- Optimized an existing core IP processing Java job with concurrency - reduced a 24 hour job to 4 hours

### Full Stack Software Engineer

Jun. 2020 – Sep. 2020

*Reach*

*Remote*

- Architected a cost-efficient solution to process video view data in real time with AWS Kinesis
- Implemented real time updates for post, playlist, and notification data with GraphQL subscriptions

- Refactored the existing code base to use Redux Toolkit with a focus on maintainability and scalability

## Backend Software Engineering Intern - Search

Jun. 2019 – Sep. 2019

*ZipRecruiter*

*Santa Monica, CA*

- Created a Python script to process incoming job feeds and clean up poorly formatted job postings; required building a comprehensive testing suite
  - Every job posting on ZipRecruiter is filtered using the above script
- Implemented the C++ tinyCDB library, enhanced it with a custom iterator, and used the Boost Python library to interface it with the Python modules in the code base
  - Extended tinyCDB with a custom ReloadingCDB class to support constantly modifying databases

## PROJECTS

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### RAFT

Apr. 2024

- Took a week off of work to implement the RAFT consensus algorithm in Rust based off the paper ([link](#))
- This algorithm is the backbone of all modern databases and considered very challenging to implement

### Inference.ai

Jan. 2021 - Jul. 2021

- Architected a machine learning model deployment infrastructure utilizing EFS, ECR, Datasync, Lambda, Codebuild, and Hasura
- Implemented a backend API that automates this as a one-click process by utilizing the bull job queue

## AWARDS

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### Retool Hackathon Grand Prize Winner

May. 2024

- Won one of the three grand prizes in the yearly Retool company wide (400 people) hackathon by discovering runtime optimizations that dramatically decrease initial load time in big enterprise customer apps

### Airkit Hackathon People's Choice Winner

Sep. 2022

- Won the people's choice prize in the quarterly company-wide (100 people) hackathon by extending Autocomplete to support custom function definitions

### Airkit Hackathon Grand Prize Winner

Jun. 2022

- Won the grand prize in the quarterly company-wide (100 people) hackathon as part of the team that implemented custom components in Airkit

### Kleiner Perkins Engineering Fellow Finalist

Jan. 2022

- Completed all interview stages of the Kleiner Perkins Engineering Fellow program; declined offer to join Airkit instead

## SERVICE/LEADERSHIP

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### Retool Runtime Study Group

May. 2024 – Present

- Founding member of the internal Runtime Study Group
- Responsible for writing documentation and leading tech talks on requested portions of the runtime on a weekly basis

### UCLA Project Rishi

Sep. 2019 – Jan. 2020

- Led a team of 4 in remotely organizing a medical camp in the underprivileged village of Vadamanapakkam, Tamil Nadu, India
  - The camp included a general physician, ophthalmologist, and orthodontist
- Flew out to Vadamanapakkam in the Winter of 2019 as a team of 6 to execute the health camp as well as a women's health and education camp

### UCLA Rotaract

Sep. 2019 – Jan. 2020

- Co-led after-school math and English sessions for elementary school students

### Eastside College Preparatory School

Jan. 2019 – Apr. 2019

- Provided one-on-one calculus tutoring to multiple high school students

## MEMBERSHIP

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UPE Computer Science Honors Society

HKN Electrical Engineering Honors Society