

# Gareth C. George

SOFTWARE ENGINEER

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## Skills

**Languages** C++, C, JavaScript (Node.js), Objective-C, Python, SQL, Lua, Ruby, Java, HTML CSS  
**Technologies** git, linux, Docker, PostgreSQL, SQLite, FaaS, AWS, React

## Education

### Masters of Computer Science

Santa Barbara, CA

COLLEGE OF ENGINEERING

2018 - 2020

- Thesis track masters with a systems focus in the areas of Cloud Computing and IoT
- Research emerging Cloud Computing technologies such as Functions as a Service and Edge Clouds
- Website: <http://www.cs.ucsb.edu/~ckrintz/racelab.html>

### Bachelors of Science in Computing

Santa Barbara, CA

UCSB COLLEGE OF CREATIVE STUDIES

2015 - 2019

- Project Anacapa - worked with faculty to build tools to help professors offer more high quality coding assignments and exercises to students

## Experience

### UCSB RACELab

Santa Barbara, CA

RESEARCH ASSISTANT

September 2017 - PRESENT

- DrAFTS is a project presenting an algorithm to create a statistical SLA based on analysis of past behavior of spot instance markets such as Amazon's spot market, I have improved the performance of its prediction engine by over 10000% and improved its model to allow incremental updates
- Most recently, I develop CSPOTLambda a project allowing Python Lambda functions written for Amazon's API's to run on top of our serverless computing platform (CSPOT) without modification

### Adobe Summer 2016 and Summer 2017

San Jose, CA

SOFTWARE ENGINEERING INTERN

June - September 2017

- Worked on Adobe Sketch and Adobe Draw team
- Contributed to implementation of file management UI redesign and improved performance by implementing multi-threaded loading and generation of image thumbs
- Refactored layer management to use the iOS 12 Drag and Drop API's and this feature was shipped as a release highlight for the iOS 12 update

### Entefy

Palo Alto, CA

BACKEND SOFTWARE ENGINEERING INTERN

2014 - 2015

- Developed backend services and REST API's with Node.js and PostgreSQL
- Implemented internal message and notification dispatcher with RabbitMQ and Node.js

## Publications

### FaaSIoT: Portable, Multi-scale Functions-as-a-Service for IoT

Accepted ACME/IEEE SEC 19

3RD AUTHOR

07-25-2019

In this paper we present FaaSIoT, a distributed runtime system implementing a functions-as-service (FaaS) programming model for the "Internet of Things" (IoT).

### Analyzing AWS Spot Instance Pricing

Presented at IC2E 2019

1ST AUTHOR

06-14-2019

Many cloud computing vendors offer a preemptible class of service for rented virtual machines. In November of 2017, Amazon.com announced a change to the mechanism it was using to price its preemptible "spot instances" so that prices would change more "smoothly." This paper analyzes the effect of the change in pricing mechanism on spot instance prices.

<https://cs.ucsb.edu/research/tech-reports/2018-02>