

# VIVEK KUMAR MASKARA

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[Website](#) • [Github](#) • [LinkedIn](#)

## Education

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### Master of Science, Computer Science

Arizona State University - Tempe, Arizona

Expected in 12/21

GPA:4.0

Relevant Coursework: Data Mining, Cloud Computing, Data Visualization, Semantic Web Mining

### Bachelor of Technology, Software Engineering

Delhi Technological University - New Delhi, India

05/16

GPA: 3.34

Relevant Coursework: Object-Oriented Programming, and Operating System Design, Database Management Systems, Mobile Computing

## Work History

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### Software Development Engineer Intern

Amazon, Tempe, Arizona, USA

05/21 to 08/21

- Designed and developed a serverless system for verification of brand ID mappings capable of processing millions of records at a time.
  - It utilizes multiple AWS services such as Lambda, SNS, SQS, Step functions, Glue Jobs, EventBridge, S3 and DynamoDB.
- The infrastructure was programmatically managed using AWS CDK enabling CI/CD integration with the deployment pipeline.
- Optimized the AWS Glue Job to process ~40 million input records in <10 minutes performing validation against >1 billion ML output data.

### Graduate Research Assistant

The Luminosity Lab, ASU – Arizona, USA

02/20 to Present

- Streamlined the process of producing and delivering ~14k PPE kits by building ASU's [PPE response network](#) by building the app using Flask, NextJS and Google Cloud PostgreSQL based and setting up Docker containers and Github Actions
- Responsible for the end-to-end development of Customer 360 web-dashboard for ~9000 Bank of West employees using Neo4J graph database, Flask and React and setting up production deployments using Docker.
- Published a gamified supply chain management iOS & Android app using React Native [funded by USAID](#) for a large [user study](#) in Ghana.

### Senior Software Engineer

Zeta, Directi – Bangalore, India

06/16 to 11/19

- End-to-end ownership of Zeta's [cashless cafeteria solution](#) for Android based POS devices and Raspberry Pi based self-serve Kiosks
  - Played a key role in developing NFC & RFID based contactless payments and QR code based Kiosk payments attributing to 1 million+ monthly transactions.
  - Brought downtime to absolute 0 by building a completely [offline payment](#) experience for resilience against server outages.
  - With ~500 transactions happening per hour per device, I maintained over [~99% crash free rate](#) to allow smooth operations.

## Projects

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### Image Recognition As a Service, Cloud Computing Project, ASU

01/20 to 05/20

- Built a real-time object detector service using AWS cloud and Python based Raspberry Pi scripts beating the baseline performance.
- Effectively utilized EC2, S3 and SQS for parallel processing of videos while controlling demand based load-balancing of EC2 instances.

### Kiosk Burner, Zeta

11/18 to 04/19

- Completely automated the deployment of Kiosk, self-serve devices bringing down the SLA from 7-10 days to less than 30 minutes
- Built an Electron-based app to burn the Raspbian OS and modify the boot sequence to install and configure Zeta's Kiosk app.

## Volunteering

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### Wikimedia Foundation

03/17 to Present

- Actively contributing to the Wikimedia Commons Android app as a developer, mentor and project maintainer.
- Mentoring students during summers for Google Summer of Code, Outreachy and Google Code In since 2018.

## Skills

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- Languages & Frameworks: Python, Java, Node.js, ReactJS, Flask, Spring boot
- Databases: PostgreSQL, MySQL, and Neo4J
- Platforms and tools: AWS, Google Cloud Platform, ElasticSearch & Kibana, React Native

## Notable Highlights

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- Published over 30 mobile applications with over 1 million total downloads
- Published 100+ of blog posts on [Windows App Tutorials](#), [Tutsplus](#), [ProAndroidDev](#) and [Towards Data Science](#).
- Zeta: Stellar performer award in first year and outstanding performer award for next two consecutive years.