

VIVEK KUMAR MASKARA

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

As a full stack Software Engineer at Zeta, I helped in building a suite of products for digitizing office cafeterias used by ~700 corporates and attributing to 1 million+ monthly transactions. With strong Computer Science fundamentals and experience across multiple engineering verticals, I always tend to bring a unique perspective when solving business problems.

Education

Master of Science, Computer Science

Arizona State University - Tempe, Arizona

Expected in 12/21
GPA:4.0

Relevant Coursework: Statistical Machine Learning, Data Mining, Cloud Computing, Data Visualization

Bachelor of Technology, Software Engineering

Delhi Technological University - New Delhi, India

05/16
GPA: 3.34

Relevant Coursework: Computer Graphics, Artificial Intelligence, Object-Oriented Programming, and Digital Image Processing

Work History

Student Researcher

02/20 to Present

The Luminosity Lab, ASU – Arizona, USA

- Streamlined the process of producing and delivering PPE kits by building ASU's [PPE response](#) network.
 - ~150 volunteers contributed ~300 3D printers to produce, sterilize and deliver ~13000 PPE kits for COVID facilities in Arizona.
 - Built the app using [Flask](#), [NextJS](#) and Google Cloud PostgreSQL based and set up a dockerized development environment.
 - Setup CI for automated building, testing and stage deployment using Github Actions.
- Built a Customer 360 web-dashboard for ~9000 Bank of West employees
 - Defined Cypher queries for importing and querying customer, account and transaction data using Py2Neo.
 - Responsible for the end-to-end development of the app 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

06/16 to 11/19

Zeta, Directi – Bangalore, India

- End-to-end ownership of Zeta's [food ordering 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.
 - Ensured availability of detailed analytics using [Firebase](#), [BigQuery](#) and [DataStudio](#) for traceability of offline scenarios.
- Contributed to over 20+ projects in Zeta spanning across Android, Raspberry Pi and backend microservices.
 - Built the interface for Zeta's rule engine using the Camunda [DMN Decision Engine](#) as part of the internal data science toolkit.
 - Added support for scheduling customizable [Redshift](#), [PostgreSQL](#) and [Jasper](#) reports in Zeta's [Spring Boot](#) based reporting service.
 - Developed a Google assistant bot for voice based food ordering using [DialogFlow](#).
- Reduced the p99 latencies for NFC tag authorization in payment flow to sub-10ms using [memcache](#) and optimizing PostgreSQL queries.
- Setup multiple service health monitoring dashboards and automated-alerts for critical microservices serving ~1 million requests/day using [Kibana](#), [Grafana](#), [ElasticSearch](#) and [Elastalert](#).

Software Development Intern

08/15 to 03/16

Times Business Solutions, Noida, India

- Responsible for the end-to-end development of [TimesJobs](#) job portal as an Universal [Windows Phone](#) app using [C#](#) and [XAML](#).

Projects

Image Recognition As a Service, Cloud Computing Project, ASU

01/20 to 05/20

- Built a real-time object detector service using [YOLO](#), [AWS cloud](#) and Raspberry Pi beating the baseline performance.
- Effectively utilized [EC2](#), S3 and [SQS](#) for parallel processing of videos while controlling demand based [auto-scaling](#) of 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 application to burn the Raspbian OS and modify the boot sequence to configure Wifi, install packages and setup SSH and install Zeta's food ordering application with cafeteria specific configuration.

Grain Measurement System, Inweon

08/15 to 05/17

- Achieved >99% accuracy in analyzing the length, width, damaged/discolored & broken rice, L*, a*, b*, and chalky area ratio of rice particles using linear regression and semantic segmentation algorithms.
- Developed a [Windows Desktop](#) app integrating it with printer and [native C++](#) code which is currently deployed in 100+ rice mills.

Volunteering

Wikimedia Foundation

03/17 to Present

- Actively contributing to the Wikimedia Commons [Android app](#) as a developer, mentor and project maintainer.
- Received multiple [project grants](#) and travel scholarships to participate in annual conferences and hackathons.
- Mentored students during summers for [Google Summer of Code](#), [Outreachy](#) and Google School since 2018.

Notable Highlights

- 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](#).

Awards

- Zeta: [Stellar performer](#) award in first year and [outstanding performer](#) award for next two consecutive years.
- 2nd in Envision, software display event by Troika (IEEE society, DTU)
- 3rd in an all Delhi BITS BYTES event for software display.