

# Abhiraj Deshpande

Full Stack Web Engineer | AR Enthusiast

Bethesda, MD | 434.466.9698 | [deshpande.abhiraj@gmail.com](mailto:deshpande.abhiraj@gmail.com) | [abhiraj.me](http://abhiraj.me)

## EXPERIENCE

### T-Mobile, Bethesda, MD — *Engineer, Software Full Stack*

Jan 22 - PRESENT [Octopus Interactive was acquired by T-Mobile]

### Octopus Interactive, Bethesda, MD — *Sr. Software Engineer*

Feb 19 - Jan 22

- Responsible for the product showing the impressions and delivery of the ads using map & chart visualizations
- Improved the backend to fetch & process 5x data points previously fetched & halved the processing time to show the ad delivery of ~10k cars on the map; scripted queries for Elasticsearch database data retrieval & maintenance; used OSM & Mapbox for implementation.
- Built a heatmap to show the impressions delivered monthly. Used Mapbox GL JS & Mapbox Tiling Service to create scripts to sample & visualize the data.
- Slashed the load time of the data fetch from 10+ seconds to under 2 seconds by improving the queries & updating the table structure. Improved the response time to under a second by implementing caching mechanism.
- Integrated third-party APIs for address validation, payment information collection, OAuth for driver sign-ups, creation & printing of shipping labels
- Improved the user experience by transforming many multi-step operations into one-click operations. Reduced the time taken for operations from 30 seconds to under 5 seconds.
- Implemented a cashout mechanism for users to cash out their earnings in gift cards; integrated payments vendor to authenticated banking information & ability to transfer money into the user's account on file

### CLSG @ UVa, Charlottesville, VA — *Web Engineer*

Oct 17 - Feb 19

- Served as a Full-stack Web Developer and Lead UI
- Developed 2 simulation games for a worldwide competition for over 500 students held across 16 sites using React and Django REST APIs
- Scaled a four-player Google Sheet based research experiment into a web-based version for 2-6 players using Django REST APIs
- Created a Google Sheet script that cleaned and exported the student evaluations data; helped reduce the time from 40 hours to 3 hours
- Programmed a security feature for the login system of games; overhauled the UI of two games and incorporated responsive web design

### Tata Power SED, Mumbai, India — *UI Software Engineer*

Nov 12 - Jun 15

- Worked on the UI team for building electronic warfare systems
- Involved in multiple projects from requirements to testing phases

## SKILLS

Python - Flask and Django

HTML CSS JS Angular React

Database - Postgres, SQL

Mapbox GL JS, Leaflet

Data Visualization & Reporting

ETL scripting

Pencil-Paper, Balsamiq Mockups, Sketch

## EDUCATION

### University of Virginia, Charlottesville, VA — *M.S. in Systems Engineering*

Aug 15 - Aug 17

Concentration in Human Factors; Coursework: User Experience Design, Human-Machine Interface, Cognitive Systems Engineering, Intro to Systems Engineering, Design of Experiments, Optimization

### University of Mumbai, Mumbai — *B.E. in Information Technology*

Aug 08 - Aug 12

## RESEARCH

Investigation of Cognitive Gains in Object Assembly using Augmented Reality (AR) - [Demo Paper](#)

Analysis and Design of Interface for a Bio-Inspired Underwater Vehicle (BUV) - [Paper](#)