

# **AJ Uppal**

#### Software Engineer

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#### Professional summary

Software Engineer with 5 years of experience in developing and maintaining scalable applications using Redux.js, Python, React.js, and PostgreSQL. Demonstrated ability to lead engineering projects and enhance system reliability through innovative solutions. Passionate about leveraging cutting-edge technology to solve complex problems and drive impactful results.

When not coding, you can find me on a bike ride, listening to Pink Floyd, or trying to convince someone that Python is the best language.

#### **Employment history**

Aug 2022 - Present

#### Software Engineer, Notable Health

San Mateo, CA

- Streamlined EHR integration processes, enhancing system efficiency and reliability.
- Architected and deployed scalable software solutions to manage data flow between Notable's platform and EHRs
- Designed and implemented robust software systems, leveraging modern tech stack including React and Kubernetes.
- Tech stack: Python, TypeScript, Node.js, React, PostgreSQL, BigQuery, GCP, Kubernetes, Terraform.

Jul 2021 - Jan 2022

## Software Architect, Software Engineer, Harvest Fintech, Inc.

Remote

- Spearheaded engineering as the first significant engineer of the Harvest financial technology solution, currently in stealth mode
- Used Flask, React Native, PostgreSQL in order to build the backend and database engineering for a mobile application
- · Architected scalable microservices, enhancing system reliability and reducing downtime.

Jan 2021 - May 2022

## Student Software Developer, UMass Amherst, Physics Department

- Development and maintenance of software for professors to acquire and share demos for >100 classes
- Porting over legacy code from Wordpress site with a json backend to an Express/React.js/PostgreSQL application that will be deployed onsite

Apr 2020 - Sep 2020

#### Software Engineering Intern, The Arena, Inc.

- First Engineer for The Arena, an education non-profit consulting solution, built out the portfolio site
- Built a database and a React.js based website to allow students from non-traditional backgrounds to find careers/programs. Deployed site via Google Cloud.

Oct 2019 - Oct 2020

#### Research Assistant, UMass Amherst, Physics Department

- Simulated fluid dynamics for the cooling of CO2 for use in particle physics detectors
- Used python (numpy, scipy, pandas, matplotlib) and Matlab (data analysis and visualization)

Jun 2019 - Aug 2019

## Software Engineering/Al Intern, Got It.Al

- Developed the ExcelChat Chrome extension
- Built microservice for automation of dataflow through Got It Study, automated maintenance of problem volume
- Helped serve QueryChat Al demo

Jun 2019 - Aug 2019

## Air Quality Scientist/Data Analytics Intern, BAAQMD

• Built, tested, and calibrated low cost air pollution monitors at the Bay Area Air Quality Management District. Built the cloud networking interface to view the data globally.

#### Education

2018 - 2022

#### B.S. - Computer Science, Astrophysics

University of Massachusetts-Amherst, Amherst, MA

Dean's List, Honors Thesis, Research Assistant and Software Developer for the Physics Dept.

Skills

python	PostgreSQL	typescript
Expert	Expert	Expert
node.js	SQL	Redux.js
Expert	Experienced	Experienced
React.js	Agile	Linux
Experienced	Expert	Experienced
Kubernetes	Terraform	BigQuery

## Side Projects

## aj8uppal.github.io

- Built a responsive, interactive portfolio hosted on GitHub Pages
- Vanilla JS

## rendezvous.buzz

- Student-centralized nexus for hundreds of UMass personnel to connect over classes
- Built using React/Redux, flask, postgreSQL
- · Hosted on GCP

## **PICKLE**

- Designed, built, and calibrated low cost air pollution monitors in an effort to spread awareness of air pollution.
- Collaborated with Sonoma Tech, BAAQMD, Manylabs.
- Documented at indiaairquality.com