# **Dhruv Bhanushali**

## Software developer

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/ dhruvkb in / dhruvkb

### **Areas of interest**



Skills

- Server-side infrastructure engineering and dev-ops
- · Cross-platform and full-stack web and app development
- Software architecture, planning, design and documentation
- Technical/non-technical documentation, blogs and articles

#### **Education**



Indian Institute of Technology Roorkee Bachelor of Technology (B. Tech.)

2015 – 2019 🛱 2015 ingineering Physics

## **Experience**



## Software engineer

FamPay

November – December, 2019

Bengaluru, India

- Wrote the core transaction API of the platform.
- Integrated with the Cashfree payment gateway.
- Developed transaction SMS notification system.
- Developed the support engine of the platform.

## Software engineer

**Creative Commons** 

April – September, 2019 Google Summer of Code

- Developed Vocabulary, a cohesive design system.
- Revamped the UI of CC Search, powered by Vocabulary.
- Initiated Vocabulary integration into other CC projects.
- Contributed features and patches to the CC Catalog API.

### Infrastructure engineer

HackerEarth

may − July, 2018 Bengaluru, India

- Wrote the IaC for the entire production architecture.
- Wrote tooling to deploy the IaC in an alternate AWS AZ.
- Wrapped Boto3 in a Python + Django web-environment.
- Developed an EC2 instance launch and termination engine.
- Isolated staging and production in separate VPCs.
- Enabled deployment of new staging VPCs in one click.

#### Software engineer

HackerEarth

may – July, 2017 ■ Bengaluru, India

- Wrote a code-evaluation engine to evaluate Java projects.
- Wrote tooling to automatically build and execute projects.
- Wrapped Ant in an async message-based Python evaluator.
- Developed the scaffolding architecture using RabbitMQ.
- Added provider-agnostic database connectivity using JDBC.
- Installed security policies such as memory and I/O limits.

#### Chief technology coordinator

**Information Management Group** 

Information Management Group (IMG) is the student body that developed, manages and upgrades both the content management system powering the IIT Roorkee website and Channel i, the official intranet portal.

- Pivoted IMG as a group from app to platform development.
- Replaced Channel i, and its suite of apps, with Omniport.
- Piloted a complete upgrade of the stack and technology.
- Mentored a team of over 50 developers and designers.
- Halved timelines by replacing the development paradigm.
- Containerised and isolated the development process.
- Fostered OSS culture with a record 30 repos open-sourced.
- Lead IMG to 10 and 13 GSoC selections in 2018 and 2019.
- Reinvigorated IMG's popular image on social media.

## Computer languages (+frameworks)

reStructuredText (+Sphinx), Python (+Django, Django REST Framework), Java (+Swing, JavaFX, Ant, Android), JavaScript/Node.js (+Storybook, Styleguidist, Jest, Vue, Vuex, Vue Router, React, Angular), Kotlin (+Android), CSS (+Stylus, Sass), PHP, FORTRAN, Bash, C++, Golang, HTML, Markdown and, of course, IATFX

#### **Computer software**

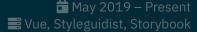
Git, Docker (+Compose), Ansible, Puppet, UFW, Travis, Sentry, NGINX, httpd, Celery, RabbitMQ, SQL & NoSQL databases, iPython, Jupyter, NumPy, SymPy, MathWorks MATLAB, GIMP, Inkscape, Adobe Creative Cloud

## Open source



## Vocabulary

Design system



Vocabulary is a cohesive design system to unite the web facing Creative Commons ©.

- Developed close to 40 components for the project.
- Wrote the documentation and styleguide for the library.
- Developed an interactive playground for the components.
- Deployed all these products to GitHub Pages and Netlify.
- Identified easy issues to encourage beginner contributors.
- Published the library to npm, jsDelivr and unpkg.

#### **Omniport backend**

Campus portal platform

Omniport is a platform for institutes to deploy their web portal (like Channel i by IMG for IIT-R), by and for the students.

- Planned it to be unopinionated to suit any institute's needs.
- Developed Omniport to be generic but customisable.
- Developed extension capability with plug-and-play apps.
- Developed latest features such HTTP/2 and WebSockets.
- Added OAuth2 provider functionality for 3rd-party auth.
- Launched as a mobile responsive progressive web app.
- Composed the Django backend, all core apps and services.
- Integrated with the React frontend and deployed on Docker.

## Omniport infrastructure

Container deployment

Omniport is a platform for institutes to deploy their web portal (like Channel i by IMG for IIT-R), by and for the students.

- Replaced old monolithic architecture with microservices.
- Containerised core and scaffolding services with Docker.
- Planned the infrastructure to be elastic and cloud native.
- Automated scaling, redundancy and reproducibility.
- Bash scripted image and container creation and tear-down.
- Deployed proofs-of-concept in dev and prod environments.

### **Projects**



Placement & Internship portal

Omniport application

august − November, 2018 Django; React

Placement & Internship portal digitises the entire placement process, including creating the official IIT Roorkee résumé, applying to companies and knowing the results.

- Added features to the app like test and interview calendar.
- Added the ability to submit a cover letter with application.
- Mentored developers of the revamped Omniport version.
- Mentored the developers of the Android companion app.