



Dhruv Bhanushali

Software composer
Graduate, IIT Roorkee

✉ dhruvkb@ph.iitr.ac.in
☎ +91 8171615670

🌐 /dhruvkb  /dhruvkb  /dhruv.k.bhanushali  /dhruvkb_

Areas of interest

- Server-side infrastructure engineering and dev-ops
- Cross-platform and full-stack web and app development
- Software architecture, planning, design and documentation

Achievements

- Google Summer of Code 2019 intern at Creative Commons.
- Scored AIR 3,110 out of 1,50,000 in JEE Advanced 2015.

Education

Indian Institute of Technology Roorkee B. Tech.
📅 2015 - 2019 Engineering Physics

Internships

Infrastructure engineer HackerEarth
📅 May - July, 2018 Bengaluru, India

- Wrote the HackerEarth *infrastructure-as-code* (IaC) after in-depth analysis of their production architecture.
- Developed the Python tools to replicate the infrastructure by deploying the IaC in an alternate AWS AZ.
- 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 developer HackerEarth
📅 May - July, 2017 Bengaluru, India

- Developed a *code-evaluation engine* to build, execute and evaluate multi-file Java projects using Ant.
- Developed the RabbitMQ *scaffolding architecture*.
- Added database-agnostic *JDBC connectivity*.
- Installed *security policies* such as memory and I/O limits.

Positions of responsibility

Chief technology coordinator IMG
📅 2016 - 2019 IIT Roorkee

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

- Pivoted the role of IMG in the campus from an app development group to a platform development group.
- Created Omniport, the rewritten open-source portal of IIT Roorkee replacing Channel i and updating its suite of apps.
- Initiated, lead and oversaw a total overhaul of IMG's core products to the latest software stack and technology.
- Mentored and tutored a team of over 50 developers and designers, at both the macro and micro levels.
- Shortened development cycles at IMG by up to 50% with a modular, containerised and isolated approach.
- Increased the IMG's outreach via social media and cultivated a brand-conscious mindset about our products.
- Developed a culture of open-source at IMG and set the institute record of 30 repos open-sourced in one day.
- Lead IMG, and consequently IITR, to the highest selections in GSoC ever: 10 (out of 35) in 2018 and 13 in 2019.

Skills

Computer languages and frameworks

Python (+Django, Django REST Framework), Java (+JavaFX, Ant), JavaScript/Node.js (+Express, React, Angular, Vue, Jest), Kotlin (+Android), reStructuredText (+Sphinx), PHP, FORTRAN, L^AT_EX, Bash, C++, Golang

Computer software and skills

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

Projects

Omniport Campus portal platform
📅 March 2018 - Present  Django; React

- Omniport is a platform for institutes to deploy their web portal (like Channel i for IIT Roorkee), by and for the students.
- Omniport is completely generic, but offers various levels of customisability, to suit the needs of any institute worldwide.
- Omniport can be extended with plug-and-play apps and can function as an OAuth2 provider for third-party integration.
- Supports the latest features such *HTTP/2*, real-time *WebSockets*, progressive web apps and role-based access.
- Developed the entire Django backend *solo*, including all core apps and services, and integrated with the React frontend.
- Wrote the documentation of the *philosophy, architecture and backend* of the portal, and reviewed that of the *frontend*.

Omniport infrastructure Container deployment
📅 March 2018 - Present  Docker; Bash

- Designed the *complete architecture* of Omniport, and its scaffolding services, from the ground up.
- Containerised the architecture with Docker and Docker Compose to automate *scaling, redundancy and reproduction*.
- Containerised the Django backend, the React frontend, the reverse-proxy, databases, message broker and cache.
- Wrote Bash scripts to automate image creation and container deployment *in development and production*.
- Configured IMG's servers and deployed Omniport branded and tailored as Channel i, thus ensuring fitness for purpose.

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* and the ability to submit a cover letter with your application.
- As *Project leader*, oversaw the development of the *revamped version* of the portal and its Android app for Omniport.

Open source contributions

CC Vocabulary Design system, component library
📅 March 2019 - Present  Vue, Styleguidist

- Creative Commons is a non-profit that develops licenses and tools to make sharing and remixing creative work easy.
- Contributed features and patches to the CC Catalog API.
- Created CC Vocabulary, a design system and component library to convert mockups to functional applications fast.
- Deployed the styleguide, documentation, component playground and examples showcase to GitHub Pages.
- Incorporated CC Vocabulary into the revamped CC Search.