

# BRIJENDRA NAG

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## Skills

### Languages:

JavaScript, C, C++, Node.js, Java, Python, Racket, SQL, PHP, Shell, HTML5, CSS3

### Tools:

MVC, Backbone.js, React.js, Unix, Git, Android Studio, Unity 3D, Heroku, MongoDB, jQuery, Mongoose, BeautifulSoup

## Education

### University of Waterloo,

Bachelor of Computer Science  
(Sept 2016 – Apr 2021)

**Activities:** CS Club, Pure Math Club, UWMUN Club, Waterloo, MathSoc.

**Relevant Coursework:** Object Oriented Software Development, Algorithm Design and Data Abstraction, Logic and Computation.

## Achievements

- **Top 15% in CodeChef Snackdown 2017**, an annual multi-round global programming tournament conducted by CodeChef.
- **President's Scholarship of Distinction**, awarded by University of Waterloo to students with admission averages of **95% or higher**.

## Volunteering

### Everyone Grows Lucknow, India

Provided **elementary education** to underprivileged children, enrolled them into schools and **raised funds** for their fees.

## Experience

### Beyond One Eighty | Software Developer

May - Aug 2017

- **Tech Used:** Backbone.js, Node.js, Python, MongoDB, Mongoose, Shell/Bash, HTML, CSS, external plug-ins and, Node packages.
- Engineered the entire user portal, to manage, analyse and, process data related to important **marine points, from scratch**.
- Built a **search engine** to conduct complex, customized queries on **geospatial data** and designed a front-end to display search results.
- Modularized and reviewed the approval process, **reduced database calls by 80%** and improved loading speed **exponentially**.
- Streamlined DropBox **cloud storage** by writing a file indexer, using the **DropBox API**, to track data uploaded through all channels.
- Developed a **Python BS4 scraper** to **synchronize metadata** of over **700** blog posts and integrate it into the Havene information portal.

### SpaceX Hyperloop: Waterloo | Admin Team

Oct - Dec 2016

- **Sponsorship** relations management & **Journalism** role.
- My team successfully **raised CA\$ 43,416 (220% of goal)** through a Kickstarter campaign to fund the prototype **hyperloop pod**.

## Projects

### Caffeine

Mar 2017

- **Won 2<sup>nd</sup> Place** at **Start Hacks** for designing a product which prevents drivers from dozing off, hence **reducing accidents**.
- Integrated '**Muse: the brain sensing headband**', with an **Android App via Bluetooth**.
- Processed **real-time brainwave & accelerometer** data from **Muse** to track head-position in 3D and monitor brain activity.

### Euphorify

Jan 2017

- Engineered a **web application** for social media at **PennApps XV** which analyses your Facebook photos and generates a collage.
- Utilized the **Facebook Graph API**, **Microsoft Emotion API** and set up a **node server** with **AWS** to process sensitive data securely.
- Efficiently sorted the obtained images to **generate a collage** containing **images of a particular emotion**.

### ReactOnFly

Nov 2016

- **Chrome extension** built at **HackPrinceton** which automatically '**reacts**' to Facebook posts by detecting face reaction.
- **Integrated** the **Facebook Graph API** and wrote a **Java** script for continuous deletion of redundant data from the server.

## Open Source Contributions

### /dropbox/dropbox-sdk-js

Jun 2017

- **Refactored** usage examples for **DropBox API's** JavaScript SDK.
- **Cleaned** up Git history, conflicts after collaborating with DropBox.