

BRIJENDRA NAG

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Skills

Languages:

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

Tools:

Git/Github, Linux/Unix, Bash, HTTP, JSON, Android Studio, Unity 3D, AWS, MongoDB

Other:

Object Oriented Programming, Imperative Programming, REST APIs, Unit Testing, Black-box & White-box Testing, Functional Programming, Data Structures, Algorithms, Social Media Marketing

Education

University of Waterloo,

Bachelor of Computer Science
(Sept 2016 – Apr 2021)

Relevant Coursework:

Algorithm Design and Data Abstraction, Designing Functional Programs

Volunteering

Everyone Grows

Lucknow, India

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

Awards

President's Scholarship of Distinction, University of Waterloo

Awarded to students with admission averages of **95% or higher**.

Experience

Beyond One Eighty

May, 2017 - Present

Software & Web Developer

Creating customised, high performing geo-spatial Web applications and services for clients utilizing Node.js, Javascript HTML5, CSS3, and MongoDB, and documenting architecture within.

Waterloo SpaceX Hyperloop: Waterloo

Oct-Dec, 2016

Admin Team

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

Projects

Caffeine



Mar, 2017

- **Won 2nd 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.

Cyphotron



Mar, 2017

- Implemented a **256 bit RSA cryptosystem** from scratch with **Java** and used the **BigInteger** data type for storing integers **dynamically**.
- Scalable and asymmetric **encryption algorithm** with a public key to encrypt the message and a secured private key to decrypt it.

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.

Archify



Nov, 2016

- '**Ready for Emergency**' **Android app** built at **ArchHacks** which automatically requests help from an appropriate hospital.
- **Designed an algorithm** to choose the appropriate hospital at an instance. Built the **back-end with Java** and implemented **CSV database querying** and integration.