

BRIJENDRA NAG

www.brijendranag.com ; bnag@uwaterloo.ca
+1-647-554-8308



Skills

Programming Languages:

Java, C, HTML5, Racket,
JavaScript, Node.js, SQL

Tools:

Git, Unix, JSON Handling,
Android Studio, Facebook
Graph API, Microsoft Cognitive
Services APIs, Unity 3D

Other:

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

Awards

President's Scholarship of Distinction, University of Waterloo

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

Education

University of Waterloo,

Candidate for Bachelor of
Computer Science (2016-2021)

Relevant Coursework:

Algorithm Design and Data
Abstraction, Designing
Functional Programs

Experience

SpaceX Hyperloop Competition (Oct-Dec, 2016)

Sponsorship relations
management & **Journalism** in
Waterloop, the **only Canadian**
team in the final round of the
international SpaceX
Hyperloop Pod Competition.

Projects

Caffeine March, 2017

- **Won the 2nd Prize** at **Start Hacks** for this product which prevents drivers from dozing off, hence **reducing accidents**.
- Used the **Muse headband**, which **connects** to a mobile phone **via Bluetooth**, to get real-time brainwave and accelerometer data and used it in an **Android App** (published on Google Play Store) to track head-position in 3D and monitor brain activity.

Cyphotron March, 2017

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

Euphorify January, 2017

- A **web application** for social media built at **PennApps XV** which analyses your Facebook posts and photos and generates a Collage
- Used the **Facebook Graph API**, **Microsoft Emotion API** and set up a **node server** with **AWS** to gather and process data securely.
- Worked on integrating the two APIs together using **JavaScript** and **HTML** and then sorting the obtained images to generate the collage containing images of a particular kind.

ReactOnFly November, 2016

- A **Chrome extension** built at **HackPrinceton** which automatically 'reacts' to Facebook posts by detecting your reaction.
- Worked on **designing the concept** of the extension, integrating the **Facebook Graph API** with it and continuously deleting redundant data on the server with a script written in **Java**.

Archify November, 2016

- A 'Ready for Emergency' **Android app** built at **ArchHacks** which automatically requests help from an appropriate hospital.
- Worked on the **back-end with Java** and implemented **database querying** with **CSV**, its integration with the app. **Designed an algorithm** which chooses the appropriate hospital at an instance.

Volunteering

Hack the North Waterloo, Canada

- Assisted in the **delivery of food** at the Hackathon.
- **Received participants** from other universities and ensured a smooth event by **floor patrolling**.

Everyone Grows Lucknow, India

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