

BRIJENDRA NAG

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



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

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.

Education

University of Waterloo,

Bachelor of Computer Science
(September 2016 – April 2021)

Relevant Coursework:






Algorithm Design and Data Abstraction, Designing Functional Programs

Awards

President's Scholarship of Distinction, University of Waterloo

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

Projects

- Caffeine**  **March, 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**  **March, 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**  **January, 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.
 - Integrated the two **APIs** asynchronously using **JavaScript & HTML**, efficiently sorted the obtained images to **generate a collage** containing **images of a particular emotion**.
- ReactOnFly**  **November, 2016**
 - **Chrome extension** built at **HackPrinceton** which automatically '**reacts**' to Facebook posts by detecting your reaction.
 - **Brainstormed the concept** of the extension, integrated the **Facebook Graph API** with it and wrote a script in **Java** for continuously deleting redundant data from the server.
- Archify**  **November, 2016**
 - '**Ready for Emergency**' **Android app** built at **ArchHacks** which automatically requests help from an appropriate hospital.
 - **Designed an algorithm** which chooses the appropriate hospital at any instance. Built the **back-end with Java** and implemented **database querying** with **CSV**, its integration with the app.
- ## 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.
 - Enrolled them into schools and **raised funds** for their fees.