

# NAKUL PATHAK

(226)-868-8127 · n4pathak@uwaterloo.ca  
nakulpathak.com · github.com/nakulpathak3

## TECHNICAL SKILLS

---

- Languages: C, C++, Python
- Tools: Google App Engine, Git, Bash
- Databases: SQL
- Proficient in web development technologies.

## RELEVANT PROJECTS

---

- **Blog App** *Current*  
Built a blog using Python and Google App Engine which utilizes HTTP Requests, Form Handling and GQL. Working on expanding this into a full-fledged blogging service with user authentication, password and cookie hashing.
- **ASCII Chan** *November 2014*  
Created ASCII Art Service using Python and App Engine as part of Udacity course. Uses Google Maps API, HostIP API, App Engine Datastore. Also, includes caching to reduce requests to database.
- **MyoRunner** | ENGHACK, 2nd Place *2nd November, 2014*  
Learned Lua to create temple run type browser based game controlled by Myo.
- **Feed Me!** | HACK THE NORTH, Participant *September 2014*  
Used Django and Python to create a web app which provides possible recipes you can make with the ingredients you list in a search by parsing the ingredients across an API from Yummly.
- **Designed Online Portfolio** *June - July 2014*  
Applied HTML, CSS, jQuery skills learned online to create personal website from scratch.

## EDUCATION

---

- **University of Waterloo, 1st Year(1A Term)** Waterloo, Ontario, Canada.  
Bachelor of Software Engineering Honours Co-op, 2014-2019.
- **DPS RK Puram** New Delhi, India  
Graduated with 96% average in Physics, Chemistry, Mathematics and Computer Science(99%)
- **Standardized Tests**  
SAT - 2360, SAT Math Level II - 780, TOEFL - 113
- **Online Courses** The internet, WWW
  - Udacity
    - Introduction To Web Development
    - Google App Engine · HTTP Requests · Form Handling · Cookie & Password Hashing · APIs · Caching · Scaling Up
    - Web Performance Optimization
    - Critical Rendering Path · Using PageSpeed Insights · Javascript Optimization (Asynchronous vs. Parser Blocking)
    - Introduction to AJAX
    - API Implementation · Handling JSON & XML Responses
  - Codecademy
    - HTML & CSS, Javascript, jQuery, API Handling
    - <http://www.codecademy.com/nakulpathak3>
  - CodeSchool
    - Discover DevTools (Chrome Developer Tools)

## VOLUNTEER EXPERIENCE

---

- **Juhu Angels Welfare Association** *May 2013*  
Removed 5 tons of litter from beach in Mumbai. Educated visitors about beach cleanliness through campaigns.
- **Savera NGO** *August 2012*  
Created educational posters, made seating arrangements, registered student background profiles, etc. for health checkup camps in 8 Delhi schools.
- **ISS Facility Services** *June 2011*  
Trained unemployed youth to help them gain employment through basic English usage, hygiene, etiquettes and grooming at slums in East Delhi.

## CO-CURRICULAR ACTIVITIES

---

- **Engineering Ambassador, University of Waterloo** *September 2014- Current*  
Represented University of Waterloo by creating online portfolio. Answered emails/messages from prospective students. Actively participated in events for the program.
- **Chief Editor, School Magazine, DPS RK Puram** *December 2012- March 2014*  
Lead team, delegated tasks, decided which articles to add, edited articles, contacted teachers and external agencies for magazine content and design.

- **School Events Organizer, DPS RK Puram**

*March 2012- December 2014*

Organized Prem Kirpal Competition, World Mathematical Crusade & National Literary Festival. Scheduled events, allocated spaces, delegated work, contacted other schools and chief guests, etc.

- **HH Internships/Co-op Group Creator and Admin**

*November 2014- Current*

Created a group for students to match up with startups/big companies/other students for internships & to help each other with academics, resumes, advice, etc. Currently has 542 members.

---

## AWARDS & SCHOLARSHIPS

- **President's Scholarship of Distinction**

*September 2014*

Scholarship given by University of Waterloo for achieving above 95% in grade 12.

- **International Experience & Research Awards**

*September 2014*

Scholarships by University of Waterloo for academic and co-curricular excellence, usable in upper years for international co-ops and research opportunities.

- **Scholar Badge Award**

*March 2014*

Award by DPS RK Puram for maintaining excellent academic performance for 4 consecutive years (since joining DPS RKP).

- **Youreka Camp Leader Award**

*June 2012*

Leader & role model award at Youreka camp for students in Himalayas. Participated in white water rafting, river crossing, cliff diving, team games, etc.

---

### 1. What sparked your interest in computer science? How have you pursued this interest so far? What do you hope to accomplish with your computer science degree?

In 10th grade, I watched The Social Network. As I watched Mark Zuckerberg, swiftly hack all of Harvard's directories and use "some wget magic" to extract pictures from them, my interest in the subject began to rise. I fell in love with the sound of the keystrokes, the computer following the maestro's commands and making magic happen. He held the power to type commands, write logic and create things that connected the entire world. He did that from his dorm room computer. The device in front of me is the most powerful thing created by humanity. A week after Zuckerberg had inspired me, I enrolled in a C course.

This was followed by taking C++ programming courses in both 11th and 12th.

The summer after grade 12, I had free time as my exams had finished by April. As I powered through online courses, I felt a curiosity to learn everything. I learned as much as I could everyday. I was addicted. After reaching UW, I attended hackathons, made hacker friends and continued doing courses to further this passion. As I learn more, I would like to spread this knowledge to people who would otherwise not have access to it.

### 2. What career aspirations and factors lead you to apply to this program? How would participating in the EP program support your future educational, career or personal goals?

Due to my passion for programming and my curious attitude, I am confident that I will utilize the EP program to the fullest. I will make lifelong friends and mentors, gain experience learning from the most brilliant minds, learn to work well as part of a team, and most importantly, enjoy every moment of it because I love this field. I love the idea of being a Noogler. I will absorb every drop of knowledge that comes my way in these 3 months. One of my long term goals is to spread computer science knowledge in the rural areas of India. By starting my career at Google and hopefully, later continuing as a full-time employee, I can learn the best strategies to fulfil my goal, as Google itself is actively involved in increasing diversity in tech. Google's small business training programs are an excellent example of what I would like to implement in the rural areas of India.

### 3. Google is committed to encouraging underrepresented students to seek degrees in computer science. Why do you think it's important to have diversity in the field? What ideas do you have for ways in which you can help increase diversity in the field of computer science?

As our world becomes more globalized, it becomes important for tech companies to represent this changing world. A company which offers services to a diverse group of people must realize that those services cannot be created in the best way possible with only the limited mindsets of one or two groups of people. It is necessary to have the voices of multiple groups heard. The problems that Google has the potential to solve is limitless. Having employees from different countries and ethnicities, helps bring to light problems that one group of people might not be aware of. Thus, more problems across the globe can be solved. To improve diversity in computer science we must realize, that the biases start at a low level. Women are discouraged from tech roles and minorities remain unaware of the potential that such roles hold due to their limited backgrounds. It is the responsibility of companies to reach this issue at the grassroots level by visiting minority-heavy neighbourhoods and educating them about the power of computer science. Also, it is important to retain minorities by working towards a healthy workplace environment free of unconscious bias and unhealthy remarks.