nakash.ali@uwaterloo.ca +1 (226) 978 2536 www.nakashali.me

# Nakash Ali

Computer Engineering University of Waterloo

173 King St. North, Waterloo, ON, Canada N2J 4T5

# **Skills Summary**

- Adept at object-oriented programming with C++, C# and Java through years of software development experience
- Proficiency in HTML5, CSS and JavaScript through concrete experience in self-initiated web development projects
- Familiar with computer science concepts and relational databases; proficient with algorithms and data structures
- An understanding of the software development lifecycle while hungry to learn more about software production
- Tremendous UI design skills, primarily in Qt and Eclipse, through Android and Windows application development
- Excellent innovation and problem solving skills through team design projects and love for challenges
- Quick and passionate learner who dives into every pool of knowledge; very adaptable with an urge to improve
- Vast inventory of interpersonal and teamwork skills, through workplace experience and oceans of team projects, while also an excellent independent worker; individually handled all IT duties during previous internship.

# **Technical Skills**

C++ Qt Framework HTML 5 / CSS Git

C# Eclipse JavaScript + jQuery VHDL + Quartus II

Java Android Studio Bootstrap SQL

# **Work Experience**

### **Program Developer**

(Jan 2015 – Apr 2015)

Carleton University, Ottawa

- **Independently developed the GUI** of a desktop based hydrological-simulation software, **distributed beta version** to clients, and **completed debugging** based on reviews, resulting in the software ready to go gold.
- Enhanced OOP skills by using advanced C++ with Qt's MVC architectural pattern to implement the UI.
- Created and distributed the installation package using a **script-driven installation system** called **"Inno Setup"**.
- Travelled to Vancouver; **performed instant debugging**, allowing smooth use of the software during a course.

#### **Customer Service and Corporate Intern**

(July 2013 – Aug 2013)

Diamond Trust Bank, Kenya

- Developed excellent communication skills and professionalism by serving customers at a major branch
- Demonstrated quick learning by independently writing loan applications within two days of corporate training

## **Projects**

# **Android Application Development**

(Jan 2015 - Present)

- Developed Android applications using event-driven programming in Eclipse, programmed in advanced Java
- **Created a pedometer** by **reading the accelerometer**, **using state machines** and filters; also created an application that read, graphically displayed and recorded dynamic sensor values
- Development included the use of the Subclipse plugin, allowing efficient teamwork; experience with SVN

# Web Development (Jan 2013 – Present)

- Developed two websites using HTML 5 and CSS with Bootstrap and JavaScript with jQuery
- Designed an interactive personal website (listed on top), using jQuery, and an informational website for my philanthropic group (<u>www.uhaimombasa.com</u>) using HTML / CSS; substantial web design experience

#### **Independent Software Development using OOP**

(Jan 2014 - Dec 2014)

- Utilized object-oriented programming concepts to build programs, in C# and C++, with advanced features
- Created software for database management, encoding/decoding messages, automation of data processing, through file input/output streams, and complex calculations; exceptional OOP skills and experience
- Used Visual Studio Command Prompt with the .NET Framework to compile all programs

#### **Digital Circuit Design and Logic Synthesis**

(May 2015 - Present)

- Designed hardware using VHDL, verified RTL schematics through simulation, and programmed FPGAs after the synthesis of the HDL design was completed in Altera Quartus II; rich understanding of hardware design
- Designed and Implemented combinational and sequential circuits to control cars and elevators

#### **NSLC Team Design Projects:**

(Jun 2013 - Jul 2013)

- Built an electronic underwater sea perch using concepts of fluid mechanics and circuit design
- Built a trebuchet and a mini wind turbine using recyclable and low-cost materials; enhanced creativity

#### **Co-Founded UHAI, Mombasa (Charitable Group)**

(Dec 2012 - May 2014)

- Worked with a team of executive members to engineer solutions to problems in the developing world
- Implemented various fund-raising techniques to provide Pungu Primary School with access to clean water
- Organized entertainment events for the unfortunate and handicapped within the community of Mombasa

# Volunteering and Extracurricular Involvement

Model United Nations: (Aug 2012 – Jan 2013)

- Developed exceptional communication skills by debating about world issues in large-scale conferences

#### Dorm Captain at Aga Khan Academy, Mombasa:

(Apr 2013 - Apr 2014)

- Acquired excellent leadership skills through student leadership of residential dorm in high school
- Demonstrated teamwork by working with other captains to organize events for the residential community

#### **Community Service and Event Organisation**

_	Constructed a School in Mombasa	with a team, in a rural Kenvan village	(Dec 2012)
_	CONSTRUCTED a SCHOOL III MOHIDASA.	Willia leaili. Ili a Turai Nelivali village	(Dec 2012)

- Organized and participated in an event to medically deworm of villagers in Kenya (Sep 2012)

- Enhanced teamwork skills by organizing an IB Workshop, with other students, in Mombasa (Oct 2013)

Raised Awareness about environmental issues with "Your Environmental Voice" (Aug 2012 – Jan 2013)

- Independently organized soccer and basketball tournaments for the youth in U.A.E (2010 – 2011)

- Organized informational and recreational events with Odyssey Youth Club, Dubai (Mar 2011–Aug 2012)

#### 'The Tribe' (Music Group)

(Aug 2012 - May 2014)

Performed at several concerts and large-scale events; won several competitions

#### **Physical Education**

- Played for the cricket, basketball, table-tennis and softball varsity teams in high school (2008 – 2013)

Climbed Mt. Kasigau (1600 meters) with a team for the Bronze President's Award expedition (Feb 2013)

## Awards and Scholarships

A CAD 12,000 President's Scholarship to the University of Waterloo for academic excellence (Apr 2014)

MVP at the NSLC Conference for exceptional leadership, creativity and problem solving skills

(Jul 2013)

• Annual Academic Award and 5 consecutive Academic Honours Certificate in high school

(2010-2014)

Offered a USD 32,000 scholarship by UC, Riverside for academic excellence (not availed)

(Apr 2014)

#### Education

Candidate for BAS in Honours Computer Engineering at the University of Waterloo (Sep 2014 – Present)

International Baccalaureate Diploma from the Aga Khan Academy, Mombasa (Aug 2012 – May 2014)

# **International Baccalaureate Diploma Projects**

- Math Exploration: calculated the probability of winning Poker hands through conditional probability concepts
- Extended Essay: an extensive 4000-word research paper exploring links between technology and economics