

ANUJ OPAL

1B Honours Computer Science
University of Waterloo
ID No. 20613132

Email: anujopal@gmail.com
Address: 166 Westvale Drive,
Waterloo, ON, N2T 1C2
Home Phone: +1 (519) 888 9087

Skills

- Highly proficient in C++, Javascript and OOP; experienced with HTML, CSS, Lua, Python and git
- Experience with two-dimensional graphics processing and machine learning techniques
- Worked as part of a team on large projects (400 000+ lines of code)
- Developed code on Linux and Windows environments
- Exceptional work ethic, initiative and ability to work independently
- Comfortable in both written and spoken French

Experience

Software Developer at Encircle, Kitchener, ON

July 2015 – August 2015

- Independently implemented bug fixes and added functionality to the company website
- Designed and prototyped a desktop application using the Electron application framework; wrote detailed documentation to allow other team members to continue development

Independent Projects

RSA Cryptosystem

- Implemented the RSA cryptosystem in C++; system capable of generating keys up to 1024 bits
- Optimizing the system in Coffeescript using the Electron application framework; generated keys upto 4096 bits

Sonus editor

- Developing a code editor with voice-to-text capabilities using the Electron application framework and the Google Web Speech API

Prime number generation

- Implemented three different algorithms including the sieve of Atkin; generated the first 105 million prime numbers

Education

University of Waterloo, Waterloo ON, September 2015 - Present

Candidate for Bachelor of Honours Computer Science, 1B

Awards and Contests

- President's Scholarship of Distinction, University of Waterloo (95+ admissions average) – 2015
- 5 International Baccalaureate (IB) certificates – 2015
- Senior Canadian Computing Competition (70th percentile) – 2015
- Euclid Mathematics contest (70th percentile) – 2015
- Junior Canadian Computing Competition, Champion of Central and Western Ontario – 2014
- Fermat Mathematics contest (92nd percentile) – 2014
- Hypatia Mathematics contest (95th percentile) – 2014

Extracurricular Activities and Interests

- Fingerstyle guitarist; member of school and personal bands at various times
- Cameron Heights Creative Writing club, writing short stories and a novel
- Athlete at the Kitchener-Waterloo Sertoma Speed Skating Club (KWSSSC) since 2005
- Junior coach at the KWSSSC since 2011 (volunteer)



151 Charles St, West, Suite 100
Kitchener, ON, Canada, N2G 1H6
November 23, 2015

To Whom It May Concern:

It is with great pleasure that I write this reference letter for Anuj Opal. In the short time that we have worked together, Anuj has demonstrated exceptional programming ability and strong motivation at learning anything and everything about his craft. Anuj has quickly become a core member of the team with impactful contributions, which will sorely be missed as he heads to university.

Our company, Encircle, is a small startup focused on technological innovation in the insurance industry and strongly entrenched in the University of Waterloo startup ecosystem. Showcasing his motivation, Anuj worked through the university channels looking for a startup to volunteer at of his own volition. In exchange for his work, he asked for nothing more than valuable experience working on a large project, with a team, and on a real product; all things which are missing in a traditional academic environment. He quickly got up to speed on our development workflow using git and GitHub, and had real, impactful commits on the project within days of starting.

Given our extremely limited developer bandwidth, we could only offer little oversight and mentorship as Anuj started working on the project. His first task involved extending our Google Maps API integration to properly handle addresses without an associated Street View. Even though his prior exposure to web technologies was limited, Anuj navigated through the task efficiently and independently. However, he was quick to ask for help when needed, with direct well thought out questions, avoiding the decision paralysis trap that many younger developers often fall into. Anuj was also quick to incorporate our suggestions from the code review process, resulting in high code quality of the final product which was quickly integrated into the codebase.

Given his ability to work largely independently, we thought we could best utilize Anuj's abilities with a more exploratory project next. The insurance industry is not exceptionally advanced when it comes to technology, and so we have enormous burden of supporting legacy Internet Explorer versions. We tasked Anuj to find a way to package the website and our Chrome extension inside a browser like shell so we could distribute a full fledged Encircle experience as a desktop binary. He quickly settled on the GitHub Electron project and soon we had a pull request for a working version of the website neatly packaged as a desktop application.

Anuj is an exceptionally talented programmer who demonstrates ability far beyond what his years might suggest. His passion for learning and goal oriented nature will make him a great asset in any faculty, program, or place of employment.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ronuk Raval".

Ronuk Raval (Co-founder)

A handwritten signature in blue ink, appearing to read "Christophe Biocca".

Christophe Biocca (Co-founder)