ANUJ OPAL

2A Honours Computer Science (Co-op)
University of Waterloo
ID No. 20613132

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Skills

- Highly proficient with C/C++, HTML, Javascript, Typescript, Coffeescript and AngularJS
- Experienced with CSS/Less, Lua, Bash, Python, C#, Aurelia, Node.js, Mercurial and Git
- Experience with two-dimensional graphics processing and machine learning techniques
- Comfortable developing on both Linux and Windows environments
- Exceptional work ethic, initiative and ability to work independently
- Comfortable in both written and spoken French

Experience

Software Developer   **July 2015 – August 2015**
Encircle Inc. Kitchener, ON

- 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

Full-Stack Web Developer   **May 2016 – August 2016**
Imagine Communications Inc. Waterloo, ON

- Front-end web development in Typescript with AngularJS 1.5, back-end in C#
- Worked as part of a team using Agile development processes
- Wrote proof-of-concepts for Aurelia and Electron realistically showing the advantages and disadvantages of both frameworks
- Worked directly with QA engineers to quickly fix bugs

Independent Projects

RSA Cryptosystem
- Implemented the RSA algorithm 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

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, 2A

encircle

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,

Ronuk Raval (Co-founder)

Christope Biocca (Co-founder)