January 14th, 2015

John von Neumann
1 Varsity Drive, Suite 1972
Ann Arbor, Michigan 48108

Dear John von Neumann,

I would like to start by telling you how eager I am to work as a computer engineer for Little Toy Blue, especially in the educational toys department. I look forward to working with the experienced members at the company to learn and grow my computer science knowledge and gain experience in working with both hardware and software engineering. I have extensive background with computers and programming, and will work enthusiastically to further the projects our company is developing.

I developed my interest for technology as a child. Throughout my life I've always been fascinated by machinery. Growing up in Silicon Valley, there was an abundance of discovery and innovation happening right next door. And these would always be the topic of conversation at our dinner parties. My mother, who's a computer engineer, would tell me fascinating stories about the projects she got to contribute to in work, sparking my interests even more. The most mesmerizing story I remember hearing, was when my mom told me her company, which specializes in gift card development, was building a mobile platform for any monetary transaction. My mom claimed that with the new security features on phones, such as facial recognition and fingerprinting, storing credit card data in them was seeming less and less risky. She said soon, it might be possible for people to simply scan their phones instead of carrying around an entire wallet of cards. This inspired me to pursue a career in the field of computer science.

This past semester I took engineering 151, an advanced programming class at the University of Michigan. This class helped me familiarize myself with many of the basic aspects of coding. The topics we covered included the majority of procedural abstraction and data management, including iteration, arrays and vectors, functions, classes, pointers, streams, inheritance, recursion, exception handling and more. In that class we also worked on many detailed projects to help us practice the topics. We designed and implemented many computer simulations in our projects, but the two most notable included a simulation of the board game monopoly and an algorithmic stock market trading strategy. These projects not only helped me practice writing and implementing code, but also debugging code to find errors. As a result I feel like I am very comfortable in programming and working with algorithms to write and design code for toys.

This semester, I am Professor Brehob's Microprocessor and Toys engineering section, Data Structures and Algorithms and Discrete mathematics, all of which are fundamental computer science classes. The last two will help me further master the concepts we talked about in the previous paragraph but the first one is unique. In Microprocessors and Toys class we learn about the hardware side of development, and how to best fuse the hardware and software when designing devices. This is critical is building devices because we are able to optimize the performance of both systems by having them work together. The class we also teach us about

microprocessors, memory, encryption, input/output devices, and more. The curriculum focuses heavily on teaching students the exact aspects needed to build educational toys, just like the work done at Little Toy Blue.

I have had past experience working for a company as well. Last summer I interned for a startup company called MovieLaLa. The company was building a social media platform for marketing and discussing movies. While working there I created and monitored social media marketing accounts on Tumblr, Pinterest, Facebook, and more reaching thousands of subscribers, Wrote the script and managed all preparation (including organizing the location, cast and props) for the company commercial, and assisted in website development by linking marking data, such as multimedia files and meta-data pertaining to release details and reviews, to proper site locations using JSON.

Furthermore, I also have previous experience working on app development. This past year I developed an iPhone application for my Taekwondo school. The purpose of the app is to serve as a communication platform and the school to showcase its curriculum, events, and schedules to current and prospective students for at the school. I designed and created entire mobile interface platform, including the graphics using tools such as Adobe Photoshop and Adobe Illustrator. My inspiration for this project came from wanting to build something concrete using the skills I had and I am eager and excited to be able to do the same for our company.

I also strongly believe in the future of education toys and this company's mission. It is important to reinforce the idea that learning is not a chore, but rather something that should be enjoyed to kids. But one thing we must keep in mind is that no every child learns at the same rate or same pace. As a result, I would like to propose programming a toy that adapts its behavior depending on the child responds to certain stimuli. For example perhaps the toys could pick up new terms from the vocabulary of the child and the context they are used in or a talking globe could focus more on the parts of the world the child has trouble remembering names about than other areas.

One of my goals for my engineering career was always to work in human-computer interaction, which is the study of the incorporation of technology into our everyday lives. And now I finally have the chance. I am passionate about the interdisciplinary nature of the major, which closely integrates hardware and software, a skill that is becoming more valuable in the consumer marketplace. We are living in a time when the boundaries separating traditional fields of study are falling down, particularly when it comes to consumer electronics. As a whole, Little Toy Blue works well to ensure this.

Sincerely,

Vaish Raman
Computer Engineer