

To whom it may concern,

I am a 19 year old, highly skilled and motivated software developer looking to contribute creatively and technically on fast moving, wildly challenging software projects. I have been writing software in various forms - mostly for fun - since my freshman year of high school. I began by teaching myself to program the TI-84 calculator to solve homework problems. Fascinated, I learned Basic through trial and error - guessing syntax because I did not have the documentation. I programmed my calculator using Basic to solve math problems symbolically - similarly to Mathematica - in all courses through calculus.

Using this foundation I went on to teach myself Java, JavaScript, C++, Jass, Ruby on Rails, Python, and Swift. In college I continued this “math parallel” by writing a symbolic differential equation solver in C++. Last year I taught myself Swift and built a working demo version of an iOS RPG that I call “Hail to the King”. All of my projects can be found here at <https://github.com/Jim-Heftypants>.

After high school, I went to college for one year and took classes including Multivariable Calculus, Linear Algebra, Differential Equations, and Advanced C++. The math classes were great, but I found the computer science coursework lacked in practicality and depth. To gain the practical skills and in-depth understanding of modern systems and libraries, I attended the [App Academy](#) coding bootcamp. App Academy has an acceptance rate of 5% and only about 50% of entrants make it through the program. Most of my classmates were engineers or software developers with years of experience and were much older than me. It was a lot of fun and I learned a huge amount in both individual and team projects.

While at App Academy I developed three web applications. First I created a fullstack chess app with a RoR backend and JS React/Redux frontend. It was incredibly interesting and challenging writing a chess opponent algorithm (based upon the minimax algorithm) on top of a fullstack app from scratch in only one week. The chess app development taught me how to incorporate React/Redux best practices and how the fullstack interacts with each of its components.

The second project - a mernstack - was a team effort to develop an infinite crossword puzzle app with a mongoDB backend, JS React/Redux frontend, and Express/NodeJS middleware. My role on the team was primarily involved with designing the game system and frontend features, however, I worked closely with the backend team to ensure the systems were integrated seamlessly. Working with a team improved my skills with GitHub collaborations and helped me fine tune my ability to coordinate code.

For my third project at App Academy I built a fully fleshed out action RPG game, Adventurers, using only vanilla JavaScript. Here I learned to combine functional and class based code to create a highly efficient game engine. I discovered, practiced, and mastered JS methods such as the use of mutation observers and promises to facilitate this interaction.

Today, I am an experienced and passionate developer with an in-depth knowledge of several code systems. I specialize in front end and algorithmic development but am open to any challenging and rewarding position. I am thrilled at the opportunity to join the team and do rewarding work that incorporates my full set of software development skills.

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