# ZACHARY JAGGI

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Education: University of Texas at Dallas, Richardson, TX

August 2013 - Present

Candidate for Bachelor of Science in Computer Science

Collin College, Plano, TX August 2011 - May 2013

Associates of Sciences

#### **Employment:** Elk Products, Hickory, NC (Software Engineering Intern)

May 2013 - Present

- Rewrote several server softwares from the ground up to be streamlined, greatly reducing latency and significantly reducing memory and CPU footprint
- Corrected issues in UI of consumer remote control software, reducing problematic page loading time from seconds to milliseconds, as well as improving debug output

## Skills: Programming

- Strong knowledge of C/C++, Bash, Perl, C#, and Java
- Experience in Python, JS, PHP, Visual Basic, MySQL interfaces, and LATEX
- Experience developing with Microsoft Visual Studio, Eclipse IDEs
- Developed a custom distributed server for devices connecting via a custom protocol
- Use of debugging utilities (valgrind, GDB, GDB Embedded)
- Some experience in Android development
- Experience in libraries including SDL/2, POSIX, OpenAL Soft
- Worked with Git and SVN source tracking

#### **System Administration**

- Administration of Nginx, Apache and other servers software
- Years of experience with various distributions of Linux (especially Arch Linux)
- Experienced in task automation via Bash, Perl and Python scripts

#### **Embedded Systems**

- Experienced in programming for embedded systems
- AVR/ARM Microcontrollers: ATMega and ATTiny series

## **Projects:** Virtual Reality

- Development of interfaces for Virtual Reality technology (Vuzix VR920, Wii, Oculus Rift DK1/DK2)
- Currently managing the crossplatform work neccesary to run Dolphin VR (Gamecube emulator) on Linux

### **Open Source Community**

- Ongoing packaging of software for the ArchLinux distribution, including VRUI development kit, Dolphin VR, oculus-wine-wrapper and others as well as contributed to the various articles of the ArchLinux Wiki, especially in resolving installation issues and performance optimizations
- Active Github user, with numerous contributions (mostly related to crossplatform work)

#### 3D Printing

- Built and continually upgraded a MakerBot Cupcake, a hobbyist CNC 3D printer, including redesign of several individual parts using the OpenSCAD parametric 3D modeler
- Worked with the embedded C firmware code loaded onto the printer motherboard