

Greta Mayer

Address: 3481 Brown Road, Ellensburg, WA

Email: greta.mayer@cwu.edu

Website: www.therealgretamayer.com

Education

- **Central Washington University, Running Start** **Fall 2019 - Present**
Ellensburg, WA GPA: 4.0
 - **Thorp Schools (Part-time), Homeschooled (Part-time)** **Fall 2015 - Spring 2017**
Thorp, WA GPA: 4.0
-

Experience

- **Nerdy Girls, Co-founder** **January 2017 - Present**
Launched Nerdy Girls, a Washington based non-profit, in January 2017. Nerdy Girls was born out of concern for the fact that few girls participate in high school robotics, and even fewer hold technical roles on these teams. Nerdy Girls is working to create an alternative path for girls into the world of competitive robotics and ultimately into technical careers. To date, Nerdy Girls has hosted almost 100 Friday night meetups for teen girls where they can battle their way through a systematic progression of robot builds and programming languages. When the pandemic hit, Nerdy Girls had 20+ members and had provided intensive robotics training to more than 50 girls in the county since its launch. Now, we're taking Nerdy Girls culture online, and are in the process of building an MMORPG-style video game where girls can virtually meet up to train robots together. More information can be found at nerdygirlsproject.org.
- **Educational Robotics Video Production** **January 2017 - Present**
Scripted, filmed, edited, and uploaded library of video tutorials walking viewers through the building and programming of robotics projects that make up the Nerdy Girls curriculum. Systems covered include VEX IQ, VEX EDR, general Arduino, and Spicy Meatbots. Tutorials have been used by robotics teachers and students in different countries, amassing more than 63,000 views on YouTube. Tutorials can be found [here](#).
- **Arduino Robotics System Development** **May 2019 - Present**
Currently prototyping and developing a new robotics system for at-home robotics enthusiasts. This system is designed to be open source in nature and will provide an inexpensive alternative to the costly, proprietary robotics kits that dominate the market. We are combining Actobotics mechanical parts with our own 3D printed parts, the ArduinoMega 2560 board, cheap electronics available on Amazon, and open-source software libraries to create our new robotics kit called Spicy Meatbots. Responsible for the software side of the system which involves programming the Arduino board, researching software libraries and pulling code together to bring different robots to life. Creating an Eclipse IDE-Git-GitHub workflow that will be accessible to the at-home audience. Translating algorithms, such as PID control, into C/C++ for an Arduino robot to understand. More information on Spicy Meatbots can be found [here](#).

- **The Robot Underground, Co-founder** **March 2020 - Present**
Currently developing The Robot Underground, which we think will be the world's best (and only) comprehensive online robotics curriculum for rogue middle school and high school teens who want to build more advanced robots. Building on our Nerdy Girls curriculum, The Robot Underground will be the first of its kind: a completely free and open source YouTube-based robotics curriculum geared toward renegades everywhere who want to break into robotics from the comfort of their own home. The curriculum will consist of 23 "core" guided projects accompanied by 3 "skill paths" in the realms of Python, circuitry, and math+physics (a library totaling more than 220 YouTube tutorials) that will guide the user through the increasingly complex projects.

- **FIRST Robotics** **January 2016 - January 2020**
 - **FIRST Robotics Competition (FRC) League**
Participated for three seasons (2016-2018) on the local FRC team out of Thorp Schools, #4495 Team Haywire.

 - **FIRST Tech Challenge (FTC) League**
Founded two and led one all-girls teams that participated in the FTC league over the course of three seasons (2017-2020). Qualified for the state championship in two out of three seasons.

Honors, Awards, & Media Coverage

See www.therealgretamayer.com for links to videos and articles.

- **Met with U.S. Senator Patty Murray** **August 2019**
Senator Murray toured the Nerdy Girls headquarters and learned about the mission of Nerdy Girls.

- **Met with U.S. Congresswoman Kim Schrier** **July 2019**
Met with Congresswoman Schrier to discuss the story and the mission of Nerdy Girls.

- **Article by Dorothy Edwards, Crosscut** **May 2019**
Nerdy Girls was featured in an article published by Crosscut, a Seattle-based media organization (part of Cascade Public Media).

- **Seahawks Legion of Youth Powered by Boeing Recipient** **August 2018**
Nerdy Girls was selected to be a recipient of the Legion of Youth Powered by Boeing award. Collaborated with Seahawks media crew to make a video featuring a Nerdy Girls robot interacting with Seahawks players. Had the opportunity to take 25 Kittitas County youth and their families to a Seahawks game.

- **Nerdy Girls Documentary** **May 2018**
Selected to be the subject of a short documentary produced by a local filmmaker for Seattle International Film Festival. Debuted in Seattle in May 2018. Documentary was also shown at Ellensburg Film Festival in October 2018.
 - **The Kurt Giessler Foundation Prize for Achievement** **April 2018**
Awarded \$2000 prize for work in forging path for teen girls in the area of robotics. Prize funds were used to acquire laptops for Nerdy Girls members.
 - **Suncadia Fund for Community Enhancement Grant** **April 2017**
Awarded \$5000 grant to expand Nerdy Girls program to include a more complex robotics system.
-

Skills

- **Development Tools & CAD Software**
C, C++, Java, Python, ROBOTC, Git, Bash, Autodesk Fusion 360
- **Creative & Business Software**
Adobe Premiere Pro, Photoshop, and Illustrator, Microsoft Office Suite, G Suite