

Personal Projects

What is a Personal Project?

A personal project is an activity or exercise that you complete on your own time that demonstrates your initiative, skills, and knowledge. While personal projects speak to the skills you are hoping to demonstrate to future employers or use in the workplace, the scope can vary widely, and most successful personal projects start off as a passion project.

Benefits of Engaging in Personal Projects

1. **Build technical skills** – coding challenges, hardware mock-ups, or design concepts all demonstrate technical skills you can practice and later speak to
2. **Enhance power skills** – creating and seeing a personal project through requires many skills and attributes that are transferable to any job including creativity, perseverance, adaptability, organization, and research skills
3. **Showcase your interests** – personal projects give you an opportunity to combine your personal interests and passions with professional skills and knowledge
4. **Document your efforts** – these projects provide you with tangible activities you can speak to, track, show, and share with prospective employers
5. **Build a network** – connecting with likeminded individuals to practice, share ideas, solve problems, and showcase projects provides you with additional networking opportunity

Getting Started

1. **Start simple** – an attainable project is a successful project; you can always expand your scope or start new projects as your skills improve
2. **Connect your project to your real life** – work on something you are excited about. It's always easier to follow through on something you enjoy, and it will also make it more interesting to talk about. Examples:
 - Love to bike and have some electrical skills? Build a speedometer!
 - Like woodworking? Design (and build) a piece of furniture!
 - Into gaming? Build an online game and recruit players!
 - Want to practice your code? Build a responsive website, create a weather app, code a bot!
3. **Document your process** – every stage is important, from design conception to completed project and all the mistakes and changes in between. In addition to what you did, document your time, any changes, as well as the skills you learned along the way
4. **Take the opportunity to learn and enjoy the process** – reflect on how the process can help you with your career/academic goals
5. **Set goals, but adapt when necessary** – be realistic about your limitations (equipment, weather, space, time) and plan accordingly

Including Personal Projects on Your Resume

Option#1 – Add a separate “Projects” section

If your resume has traditional headings, such as Education and Work Experience, and is generally arranged chronologically, you can add a heading such as ‘Projects’ or ‘Technical Experience and Projects’.

- List projects chronologically and include each project separately with bullet points under each that demonstrate the skills and attributes utilized and gained
- Embed personal projects into section along with other similar experience such as course-based projects, extracurricular team projects, or volunteer projects
- Keep formatting consistent with other sections

Option #2 – Embed into a “Technical Skills and Experience” section

- Highlight the skill or technical expertise that you utilized, demonstrated, or gained and connect it back to the project. Applicable for both hard and power skills – focus on the ones in the job description
- Include numbers and data that speaks to the success of the project

Presenting Your Project: Digital Portfolios and Platforms

In addition to including personal projects on your resume, you may also want to create a digital portfolio or account on an online platform to demonstrate/share your work. Some sites of interest may be:

Website and Portfolio Builders

[WiX](#)
[Wordpress](#)
[Strikingly](#)
[Weebly](#)
[Slideshare](#)
[Carbonmade](#)

Open-Source Project Hosts for Coding

[GitHub](#)
[GitLab](#)
[BitBucket](#)
[SourceForge](#)

Personal Project Examples

Terminal Games

- Designed terminal games in C including Snake, PacMan, and a one player pong
- Applied coding skills learned at Queen's
- Adapted style and process to fit online platforms, modified and improved code as necessary
- Games available on my [GitHub](#) account

Bike Speedometer

- Utilized my Arduino coding skills, intermediate soldering skills, and knowledge of electronics
- Completed the project bike speedometer successfully in one day, with zero errors
- Adapted it further with a variety of updates, to match different bike styles and ensure flexibility of design
- Information available with photos of the project on my [Slideshare](#) account

3-D Printer

- Applied knowledge on 3D printing by planning and procuring required materials to streamline projects and avoid delays
- Utilized CAD software, generated g-code with a slicer, and bridged the software and hardware with firmware
- Ensured health and safety precautions by taking steps to prevent electric shock or burn
- Demonstrated the ability to learn new technologies by adapting the 3-D printer for different needs
- 3-D printer photos, instructions, and specifications accessible on my [Wordpress](#) website

Android Controlled Robotic Arm

- Created a robotic arm controlled by an android device, using Bluetooth command to draw a line with a pencil
- Utilized robotics knowledge to integrate hardware and software, by implementing kinematic algorithms
- Responsible for all aspects of the project from design and configuration to assessment
- Applied adaptability and flexibility to ensure fluidity of commands through programming code

Subsonic Wind Tunnel

- Constructed an intricate wind tunnel, split into three sections: a contraction cone, test section, and diffuser
- Assessed and inspected for holes and gaps, calibrated load cells, and measured air speed with an anemometer
- Applied design planning with industry standards in mind to ensure the tunnel's effectiveness
- Utilized problem solving and analytical thinking to efficiently set up sensors and mount the load cell system

Bed Frame and Headboard

- Built a wood frame and headboard, using knowledge of wood strength, workability, and structural integrity
- Utilized detail-oriented organization and planning to ensure all materials and equipment was prepared
- Followed safety guidelines for all tools, and created a homemade natural wood stain for the bed
- Checked all pieces for consistent lengths, to ensure seamless construction and installation
- Adapted the bed to three different sizes, creating a step by step instruction available on [Weebly](#)