

# Shelby Ludlow

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## Education

University of Victoria, Victoria, BC

*Enrolled in the Visual Arts and Computer Science combined program (2014)*

- Human Computer Interaction
- Intro to Computer Graphics
- Intro to Artificial Intelligence
- Digital Media
- Extended Media Practices

University of Manitoba, Winnipeg, MB

*Direct Entry into the Faculty of Engineering, continued into Computer Engineering (2012-2014)*

- Digital Logic and Computer Organization
- Engineering Mechanics

Kelvin High School, Winnipeg, MB

*Graduated from the International Baccalaureate program with an IB Diploma (2008-2012)*

## Skills

- Programming Languages: Java, JavaScript, Python, C/C++, QML
- Experienced in the Adobe Suite, Autodesk and SketchUp
- Experienced in creating apps for Android and Apple products using QtCreator and Xcode
- Knowledge of and experience with Human Computer Interaction and Interaction Design processes
- Designed visualizations in both 2D and 3D
- Practiced in UI/UX design and review, as well as user interviews on the subject
- Knowledge from computer graphics course;
  - o Fundamentals of ray tracing and rasterization
  - o Transformations in 2D/3D
  - o Perspective and visibility, Interpolation and lighting
  - o OpenGL graphics API
  - o Anti-aliasing, texture mapping, noise
  - o Etc.

# Relevant Competencies

## Project and Task Management

- Through Unfuddle I have gained experience with formal project management with the use of tickets and milestones, as well as version control systems. This was compounded with the use of SCRUM meetings both daily and weekly to keep everyone on track.
- I was given major responsibility for the “Aphasia Education App”, and was able to self-determine and prioritize ticket deadlines and milestones.
- I have also been working on ‘Lodestone’ and been able to work through milestones with a team in order to have testable, presentable code for analysis in deployment.

## Design

- I have been able to look at documentation and needs from and work towards those requirements as a team. I have been involved in multiple projects where the need of the client had to be considered, and conversations and meetings with the client were a large part of the initial design process.
- For the “Aphasia Education App” I created graphical design assets. For ‘Lodestone’ I was responsible for the basic aesthetic as well as the name and logo of the product.
- I have experience as a UI/UX designer; I have made in-depth reports on the design of a product, as well as recommended improvements and changes to update the product.

## Research and Analysis

- I have learned entirely new computer languages through co-op, such as C++ and QML. I have had to read online journals and textbooks for research and design purposes, and am able to gather information quickly and effectively.
- I have implemented bottom-up visualizations in a flexible product for future use in various situations for data analysis and research.

## Software Development; Practice and Theory

- I have used the client -> factory -> controller style of coding to implement many features in varying projects, such as the Google Calendar.
- I also have experience in the React/Redux framework of action -> reducer -> store loop
- I have used multiple languages at once to implement a feature, depending on what language is relevant and would be the best choice. In implementing the Google Calendar I used Java to call the Android Provider, then C++ to begin working with the data, then QML for the GUI aspect.

## Creative Practice

- I have developed my skills in a range of studio practices in both a University setting and personal projects.
- I have extended my practice by including my computer science skills; I have created a self-generating network graph that analyses the compositions of paintings. I have also made 3D prints of vocalizations as a physical representation of sound.

## Work Experience

### Research Programmer, May 2016 – Current • CHISEL, VICTORIA, BC

- Worked with a team on a products development throughout its life-cycle (Lodestone)
- Used Javascript and WebGL to create a product for data analysis and visualization
- Designed visualizations for representing data and information appropriately
- Reviewed and tested UI/UX design for a current software web-application
- Carried out research and information gathering for professional application

### Software Developer, May – December 2015 • CANASSIST, VICTORIA, BC

- Worked with a team on varying projects and products throughout their life-cycle
- Participated in SCRUM meetings daily and weekly
- Used QtCreator with Java, C++ and QML to create Android and Apple products and applications
- Used XCode with Objective C to create Apple applications
- Projects worked on include: Wandering Mitigation Device, WaveBand Conductor, Aphasia Education App
- Given lead on Aphasia Education App, currently in testing in app store

### Warehouse Representative; Order Picking + Shipping Clerk, 2012-2014 • PROCURITY, WINNIPEG, MB

- Followed workplace orders with consistency handling Rx narcotics for large pharmaceutical companies
- Worked within a team to achieve performance goals at the end of every day
- Helped others with their goals and accepted help in return
- Effectively communicated with other employees in the chain of command verbally and through written paperwork

## Personal Projects

- Planned projects with goals and step-by-step outcomes
- Through research appropriately projected cost and completion time, effectively managing limited resources
- Finished projects:
  - o Designed, painted and submitted three paintings for a charity auction, which raised a total of \$500
  - o Made costume-armor for personal use that won Best In Show in the Central Canadian Comic Con
  - o Created 3D models of vocalization waveforms for 3D printing
- Current projects:
  - o Working on a second costume-armor for future cons

## References

### Previous Employers:

Dr. Margaret-Anne Storey, CHISEL, Victoria, BC (205).472.5775

Mr. Leo Spalteholz, CanAssist, Victoria, BC (250).721.7302

Mr. Dave Wiersema, Procurity, Winnipeg, MB, (204).631.3535

### Personal Reference:

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