

Research Chemist **SeaStar Chemicals** **May 2016 – January 2017**

- Automated simulation screening process to improve processing times by 300%.
- Discovered two new materials for Atomic Layer Deposition Processes resulting in two pending patents.

Outreach Assistant **University of Victoria** **Dec 2016 – May 2017**

- Hosted observatory open houses for the general public.
- Created a library of promotional images with UVic's 32" telescope.

Research Assistant University of Victoria Fall 2001 – Spring 2005

- Assisted in parametrizing the dielectric response of Titanium Dioxide nano-composites.
- Implemented bash shell scripts to submit parallel simulations to ComputeCanada Unix clusters.
- Processed simulation results on RHEL/CentOS workstations.
- Improved precision of matlab signal processing algorithm by 25%.

Barista, Barista Trainer	Starbucks Coffee	Fall 2015 – Fall 2016
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- Promoted to Barista Trainer to train new staff.

Education

Victoria, BC **University of Victoria** **Fall 2015 – Spring 2019**

- B.Sc. in Physics & Computer Science with Minor in Mechanical Systems, in progress. GPA: 3.5.
- Undergraduate Coursework: Fundamentals Chemistry, Physics, Biology, Astronomy. Calc I-IV. Classical and Quantum Mechanics, Thermodynamics, Matrix and Linear Algebra.

Technical & Volunteer Experience

Projects github.com/Nat1405

- **Avogadro Open Source Molecular Editor** (2017). Free 3D molecular editor where users can draw and optimize molecules and prepare input for computational chemistry programs. C++, Python.
- **Band Website, Tortue** (2016). Implemented a website for the band Tortue. HTML5, CSS, Django

Volunteering

- **Electronics Tutor** (2016–2017). Taught four students soldering and fundamentals of analogue systems. Implemented autonomous Quadcopter flight using Arduino Uno, Raspberry Pi and Swift.
- **Reading Tutor** (2015). Guided one 2nd grade student in reading for five months.
- **Pilot, Air Cadets** (2014–2015). Brought 217 youth flying for their first flights in a Glider.

Additional Experience and Awards

- **NSERC Experience Award** (Summer 2016): Simulated properties of gas-phase Atomic Layer Deposition Precursors.
- Scholarships, Canadian Air Cadets (Summer 2013): Private Pilot's License and International Exchange to Australia.

Languages and Technologies

- C; C++ (experience); Java; Python; Swift (experience); Matlab; HTML5; Bash.
- Debian & RedHat/CentOS Linux; WestGrid & ComputeCanada Clusters; Eclipse; XCode.
- Gaussian 09; Siesta ; Orca; Quantum Espresso.