🚀 SUMMARY

Compulsively creative, I love to learn new skills with every project - whether I'm writing code, knitting cephalopods or making educational STEM toys with my 3D printer. Visions of the future and accelerating technological change excite me. I am meticulous and methodical, highly communicative and deeply empathetic.

⭐ SKILLS

Languages: Python, JavaScript, jQuery, HTML/CSS, Ruby

Frameworks: Flask, Node.js, Rails, Bootstrap

Data science: SQL, Matplotlib, NumPy, Pandas

Math: Vector calculus, statistics, linear algebra

Physics: Computational physics, quantum mechanics, electricity & magnetism, environmental physics

⚙️ EXPERIENCE

Software Developer   Feb 2017 - Present
Convergent Manufacturing Technologies, Vancouver BC

Developed mathematical modelling, data visualization and UI/UX components for composites process modelling software suite used by major aerospace contractors

Participated in product architecture design for the next major version (V4) of RAVEN with guidance and mentorship from principal engineers. Provided valuable input around architectural issues in the existing, legacy code (V3)

Designed and implemented significant portions of the V4 GUI

Analyzed results of the V3 automated test suite and triaged failures into 1) issues with test code or 2) issues with product code. Fixed test code and filed bug reports as appropriate

Junior Software Developer   Aug 2016 - Nov 2016
Swift Fox, Vancouver BC

Gathered requirements, wrote functional spec and built standalone functional prototype for technician scheduling module using Node.js, Express, MySQL

Computational Biophysics Research Assistant   May 2006 - Aug 2006
Dalhousie University Physics Department, Halifax, NS

Produced original research results using computational modelling in C.
Modified existing codebase simulating E.coli cell with oscillating protein reaction-diffusion system related to cell division.

Jessica Peters
Software Developer

EDUCATION

Web Development Bootcamp
Full Stack Web Developer
Lighthouse Labs
2016

Diploma of Technology in Environmental Protection
Environmental Protection Technologist
Kwantlen Polytechnic University
2011

Bachelor of Science in Physics
Computer Science I & II - Java, OOP, algorithms, data structures
Computational Methods in Physics - Python, data analysis
Dalhousie University
2007

CONTACT

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💼 PROJECTS

1D Thermal Profile App - Enables user to set up a 1D "drill-through" simulation of a composite material as it cures, and view plots of simulation results, via desktop app or web app. I worked on the desktop and web front-ends.
Python, NumPy, Matplotlib, wxPython, Flask, JavaScript, jQuery, HTML/CSS, Bootstrap
Convergent Manufacturing Technologies

Parametric Study App - Enables the user to enter parameter values for many finite element simulations at once, and choose which plots they want to see. It processes the output data, generates and displays the requested plots. I designed and built the UI, and worked on data processing and data visualization.
Python, NumPy, Matplotlib, wxPython
Convergent Manufacturing Technologies

T Dynamic Template - Generates a mesh for simulating a T-shaped assembly based on user inputs, and formats the mesh and other input data for the finite element analysis engine. I was responsible for mesh generation, data formatting, updating the UI, and integrating the new template into the legacy codebase.
Python, NumPy, NetworkX, wxPython
Convergent Manufacturing Technologies

Swift Fox Tech Scheduler - Technician scheduling module which manages ISP technicians' work schedules and service call bookings. I designed and built the full-stack functional prototype.
Node.js, Express, jQuery, HTML/CSS, Bootstrap, MySQL
Swift Fox Systems

Operation Thunderbird - Data analysis and visualization of classroom occupancy data for UBC Facilities Planning and Sensible Building Science. I worked on layout and data visualization on the front-end, and on the database back-end of this group final project.
Ruby on Rails, JavaScript, jQuery, HTML/CSS, Bulma, Highcharts, Postgres, Sidekiq
Lighthouse Labs

ShareGarden - "Airbnb for gardens": connecting people with garden space who lack time, energy or expertise with people who would love to garden but have no space to do it. I worked on the database and front-end of this group midterm project.
Ruby on Sinatra, JavaScript, jQuery, HTML/CSS, Bootstrap, sqlite3
Lighthouse Labs

Min Oscillations - Simulation of an E.coli cell with oscillating protein reaction-diffusion system related to cell division. I worked on computational modelling, data visualization and data analysis.
C
Dalhousie University Physics Department

Jessica Peters
Software Developer

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INTERESTS

3D printing
STEM toy design
Camping
Knitting