Calgary, AB, Canada
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Jessica Peters

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github.com/fullerenedream

Software developer with physics and environmental background.
Let's build a future we all want to live in.

SKILLS

LANGUAGES: Python, JavaScript, jQuery, HTML/CSS

TECHNOLOGIES: SVN, NumPy, Pandas, Matplotlib, Plotly

WORKING KNOWLEDGE OF: GitHub, SQL, relational databases, Flask, Ruby, Rails

EXPERIENCE

Software Developer

Feb 2017–May 2021

CONVERGENT MANUFACTURING TECHNOLOGIES

Vancouver, BC

- Developed computational 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 software suite with guidance and mentorship from principal engineers; provided valuable input around architectural issues in the existing, legacy code (V3)
- Designed and implemented large portions of the V4 GUI and plotting functionality
- 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

Key Projects:

- **V4 Plotting:** Generalized plotting module which provides data visualization in interactive multidimensional plots, while freeing development from being locked into using a particular plotting library and GUI framework. I designed and built the back-end and large portions of the desktop and web front-ends, and worked on the API implementation
- **1D Thermal Profile App:** Enables the 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
- **Parametric Study App:** Allows 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
- **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

Tech stack: Python, NumPy, Pandas, Matplotlib, Plotly, Flask, JavaScript, jQuery, HTML/CSS, SVN

Software Developer (Internship)
Aug 2016–Nov 2016

SWIFT FOX SYSTEMS
Vancouver, BC

- Gathered requirements, wrote functional spec and built standalone functional prototype for scheduling module which manages ISP technicians' work schedules and service call bookings

Tech stack: JavaScript, jQuery, HTML/CSS, MySQL, GitHub

Ground Water Scientist (Contract)
Jan 2012–May 2012

ENVIRONMENT CANADA
Vancouver, BC

- Sampled groundwater and measured water levels in Abbotsford-Sumas Aquifer
- Retrieved samples from and redeployed multilevel dialysis-cell groundwater sampler
- Calibrated and operated datasonde with multiple sensors
- Conducted chain-of-custody sample submissions and QA/QC assessment of analytical results

PROFESSIONAL DEVELOPMENT

Microsoft Power Platform App in a Day
2021

FIDELITY FACTORY 1-day workshop on Power Apps, Microsoft Dataverse and Power Automate

Climate Change for Software Engineers
2021

TERRA.DO 5-week crash course on climate science and software solutions

EDUCATION

Diploma of Web Development
2016

LIGHTHOUSE LABS WEB DEVELOPMENT BOOTCAMP
Vancouver, BC

Diploma of Technology in Environmental Protection
2011

KWANTLEN POLYTECHNIC UNIVERSITY
Richmond, BC

Bachelor of Science in Physics
2007

DALHOUSIE UNIVERSITY
Halifax, NS

VOLUNTEER WORK

Refugee Resettlement
Calgary, AB | 2022

- Co-leading setup of emergency housing and hosting Ukrainian refugee families

Anvi Project
Calgary, AB | 2021

- Tested, sorted and packed used wireless internet equipment for shipping to developing nation where hardware availability is a major barrier to affordable internet access

CycloneCenter.org
Remote | 2013, 2014

- Classified over 170 tropical cyclone images to help climate models better predict the intensity and likely locations of future storms