

Skills

Development

HTML/CSS

JavaScript

Java

C

C++

C#

Python

Design

User Interface

User Testing

Prototyping

User Experience

Data Visualization

Communication

Public speaking

Technical Writing

Copywriting

Team collaboration

Software

Adobe Creative Cloud

Balsamiq

Axure

Oxygen XML Writer

Summary

Versatile interface developer and designer experienced at crafting complexity into elegant information architecture and data visualizations seeking front-end development roles.

Work Experience

Education Analyst

Fraser Health, April 2016 – July 2017

Reduced department projects' turn-around time from weeks to days through researching company style guide, effective communication between departments, and design skill.

- Wrote copy and created graphics for web, print, and video educational materials
- Designed and built department SharePoint sites for usability and logical structure
- Created plans and prototypes to gather requirements and feedback from stakeholders
- Conducted user tests and interviews across departments on intranet designs

Visual Analytics Research Assistant

SFU CZLab, May 2014 – May 2015

Created interactive web prototypes of a fitness interface for reducing arthritis pain, which successfully led to grant funding and were found intuitive by users in testing.

- Acquired data from RESTful Fitbit API and analyzed it with the pandas Python library
- Gathered requirements from arthritis research group of physiotherapists
- Built static and click-through prototypes of interface in Illustrator and Axure
- Wrote functional prototypes in Java (Processing & JavaFX), and JavaScript (D3.js)

Technical Writer/Developer

FINCAD, May 2013 – May 2015

Increased documentation readership and reduced customer support needs by redesigning interface and contributing developer guides to in-house documentation system.

- Updated XML DTD and Python SCons modules for building documentation files
- Wrote guide and code samples for building applications with product in Java, C++, C#
- Designed and implemented CMS in Bootstrap for a Django-based web application
- Set up new documentation system using Grunt and Pandoc for writing in Markdown

Education

BSc Interactive Arts & Technology, Computer Science minor

Fall 2015,
Simon Fraser University

BA, Economics

Fall 2010,
Simon Fraser University

UX Designer

BCcampus, May – December 2012

Persuaded universities in British Columbia to move application forms to ApplyBC (now apply.educationplannerbc.ca) with smooth launch of web application form for SFU.

- Designed interactions with click-through prototype in Balsamiq Mockups
- Implemented HTML, CSS, and JavaScript to match layouts created by designer on team
- Researched, designed, and conducted user test with 8 participants
- Tested GWT (Java) widgets and performed automated testing with Selenium

Projects

3Pats

<http://3pats.ca>

Personal data visualization blog on Canadian economics, politics, and social subjects. Used to explore JavaScript and design approaches to mobile interaction for data visualization.

- Designed and wrote interactive data visualizations in JavaScript with D3.js
- Wrote posts in Markdown, published with the Jekyll static blog engine on GitHub Pages
- Collected data from open data sources, and converted into JSON or CSV format

Civilization Wheel

<http://pcclarke.github.io/civ-techs/>

Redesigned tree structure with multiple parent-child relationships to make all relationships visible, while minimizing space and keeping line crossovers readable.

- Created first drafts in Adobe Illustrator and exported SVG images to test interactivity
- Wrote Java (Processing) applications to extract and export data as JSON files
- Built interactive visualization capable of switching data in JavaScript with D3.js

English Farm Prices Visualization

<http://pcclarke.github.io/portfolio/engfarm/demo/>

Course project to create an interactive data visualization with sorting and filtering options. Allowed users to analyze the impact of historical events on the prices of farm goods.

- Sketched designs and created mockups in Adobe Illustrator of visualization
- Developed visualization in Java with the Processing library
- Wrote objects to display and handle listeners for charts, sparklines, and buttons