

Patrick Johnson | Online Resume & Portfolio:

<https://pjohns.github.io>

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2. **April 2018** **EGU**.....poster
3. **Dec 2017** **AGU Fall Meeting**.....lightning talk/poster
4. **July 2017** **CUASHI Hydroinformatics Conference**....presentation

International Congress on Environmental Modelling and Software

June 2018

An agent-based approach to evaluating sustainable drought adaptation policy - presentation

International Congress on Environmental Modelling and Software

June 2018

Simulating dynamic drought adaptation behavior of agricultural stakeholders using Agent-Based Models - presentation

EGU

April 2018

Integrating Adaption behavior in drought risk analysis - poster

AGU Fall Meeting

Dec 2017

HydroData: Discover Earth Systems Data with R - lightning talk/poster

CUASHI Hydroinformatics Conference

July 2017

Real-time Discharge-to-Damage Flood Mapping “Anywhere, USA” - presentation

@Spatial Tech Talk UCSB Spatial Center

May 2017

Accessing National Water Model Output - presentation

UCGIS Webinar

Nov 2016

2017 CUAHSI SI: Collaborative Problem Solving at the National Water Center - presentation

HAZUS Users Conference

Nov 2106

Reimagining Disaster Alert Systems: OPERA - presentation

UCSB SDSU Retreat

Oct 2016

The Five Meanings of Water Security - presentation

NCAR

Aug 2016

FloodHippo and the National Water Model - presentation

CUASHI Biennial Conference

July 2016

Densified Radar Measurement and Flow Modeling - poster

California Geography Society 2016 Annual Conference

My 2016

Rising Temperatures and Water Supply: Tools for Water Security - presentation

UC Student Lobby Conference

April 2016

Water Research: Problems with Scale in Data-driven - presentation

Education: University of Oregon

Bachelor of Science, Biology with Departmental Honors

2012–2016

Bachelor of Science, Applied Mathematics

Minors: (1) Biochemistry (2) Computer & Information Science

GPA: 3.59

Postgraduate Education: Online Courses

MIT OpenCourseWare, Udemy, and DataCamp

2017–2018

HTML, Javascript, Matlab, R Shiny, Biological Algorithms

Publications and Presentations

2018: Johnson PW, Doe CQ, & Lai SL, "Drosophila Nucleostemin 3 is required to maintain larval neuroblast proliferation." *Developmental Biology* 440.1 (Aug 2018) 1-12.
<https://doi.org/10.1016/j.ydbio.2018.04.014>

Presentation

Thesis Defense

2016

Presentation

Undergraduate Research Symposium

2016

Presentation and Poster

Summer Program for Undergraduate Research

2014

Honors/Awards

Non-Resident Dean's Scholarship 2012-2016

Western Undergraduate Exchange Scholarship 2012-2016

Dean's List Winter 2015

Dean's List Fall 2015

Department of Biology

SMART Scholar Award 2014

General University Scholarship 2012-2013

Computer Skills

Advanced: Python, R, Adobe Creative Suite, ImageJ

Intermediate: CSS, HTML, Java, L^AT_EX, git, GitHub, Bash

Basic: JavaScript, SQL, C/C++, Amazon Web Services (AWS), Matlab

Relevant Experience

Doe Laboratory, Howard Hughes Medical Institute, University of Oregon

Research Associate, Mentors: Dr. Chris Q. Doe and Dr. Sen-Lin Lai 2013-2018

- 20 hrs/week during the school year (2013-2016), 40 hrs/week during the summers (2013 and 2016) and September 2016 - January 2017
- Bench research techniques: *Fly genetics, genotyping, dissections, immunohistochemistry, proliferation assays, PCR, molecular cloning, confocal microscopy, and gel electrophoresis.*
- Research dissemination: Writing manuscript, designing figures, posters and presentations

Pipeline for Analysis of ChiP-seq Data 2016

- Collaborated with a team to automate, optimize and speed-up the analysis of ChiP-seq data on external servers using Python
- Constructed a graphic user interface for researchers with no experience using the command line
- Project is hosted on the University of Oregon super computer and on GitHub:
<https://github.com/aowen87/VincePipeline>

Summer Term at the Oregon Institute of Marine Biology, Coos Bay, OR 2015

- Hands-on classes that included daily trips into the field for species observation, identification, and collections for dissections.

University of Oregon

Summer Program for Undergraduate Research (SPUR) 2014

- 40 hrs/week of research
- Attended professional development workshops, faculty seminars, and research group discussions
- Wrote weekly reports on the status of research
- Served as the Residential Advisor for non-University of Oregon students

University of Oregon

Assistant to Lab Manager 2013-2017

- Maintained fly stocks and ordered materials/reagents as necessary
- Created data bases for available fly stocks
- Performed genetic crosses

Open Source Software Projects and Contributions

Data Vizualization in collab. with UC Santa Barbara PhD candidate

FlowlineFinder 2018

- Application driven by R Shiny
- Helps users find, view and download the National Hydrograph Dataset (NHD) and NOAA National Water Model Data
- Web Application: <https://mikejohnson51.github.io/FlowlineFinder/>
- GitHub: <https://github.com/mikejohnson51/FlowlineFinder>

A Universal Dark Theme for Firefox

developer

ShadowFox

2017-2018

- Independent project, based in CSS, with a user base of several hundred people
- Experience with git, GitHub, issue tracking, troubleshooting, and customer support
- Homepage: <https://overdodactyl.github.io/ShadowFox/>
- GitHub: <https://github.com/overdodactyl/ShadowFox/>

Firefox Configuration

contributor

ghacksuser.js

2017-2018

- Developed bash scripts to automate the process of installing, updating, and backing up the gHacks user.js
- Commentary on the contribution was published by ghacks.net: <https://www.ghacks.net/2017/12/29/automation-comes-to-the-ghacks-user-js-configuration-for-firefox/> (username: overdodactyl)

Browser Extension

contributor

RES

2017-2018

- Small feature additions including keyboard shortcuts and display settings

Text Editor

contributor

CodeMirror

2018

- Addition of a new CodeMirror theme that mirrors Firefox's developer tool's dark theme