Bret Comnes
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Experience

- **Javascript Software Developer** July 2015 - Present
  Jaguar Land Rover *Portland, OR*
  - Rapid development and prototyping of next-generation in vehicle infotainment software.
- **Technical Support Engineer** April 2015 - July 2015
  Urban Airship *Portland, OR*
  - Support Urban Airships customers ranging from mobile developers to marketers.
  - Custom mailing software for sending personalized emails to customers in Node.js
- **Web & Systems Developer** May 2014 - April 2015
  PSU Office of Information Technology - Academic & Research Computing *Portland, OR*
  - Web applications and systems programming with Python and Django.
  - Implemented and designed a Github style email correspondence bridge for ARCs ticketing system.
  - Implemented user tracking and notification system for ARC's research systems.
  - Writing package that tracks MySQL and Postgres database activity of ARCs hosted projects.
- **Systems Administrator** May 2013 - April 2015
  PSU Office of Information Technology - Academic & Research Computing *Portland, OR*
  - Responsible for building, automating and monitoring PSU's research servers and Linux Clusters.
  - Initiated efforts to automate cluster deployment and management using configuration management.
  - Launched a successful user support documentation website to orient new users on the available research systems.
  - Trained and introduced new users to ARCs resources and shared unix computing environments.
- **Research Assistant to Dr. Erik Sanchez** May 2013 - April 2015
  PSU Sánchez Nano Development Lab *Portland, OR*
  - Wrote custom control software and a web application that enabled remote viewing and operation of a Scanning Electron Microscope over the internet using Web Sockets and WebRTC.
- **Lab Instructor & Teachers Assistant** September 2012 - December 2014
  Portland State University *Portland, OR*
  - Instructed PSU's General Physics Labs and assisted in the upper division Experimental Physics Labs.
  - Developed two novel labs on the use of microcontrollers and FPGAs covering basic concepts to advanced topics like PID control theory.
- **Textbook Development Consultant** January 2012 - July 2012
  Cardinal TS *Remote in Ashland, OR*
  - Front end Javascript development for a interactive calculus textbook website for Wiley Publishing.
  - Provided conceptual content and calculus interpretation for other members of the development team.
- **Research Assistant to Dr. C.D. Hoyle** May 2009 - September 2011
  HSU Gravitational Research Laboratory *Arcata, CA*
  - Designed and machined custom experimental instruments and developed the lab's data collection, automation and analysis software to study the gravitational inverse-square law at sub-millimeter distance scales.
- **Research Assistant to Dr. David Kornreich** November 2009
  The Arecibo Legacy Fast ALFA Survey *Arecibo, Puerto Rico*
  - Trained and operated one of the worlds largest radio telescopes and analyzed the collected data searching for previously undiscovered galaxies.

Education

- **Masters in Applied Physics** — September 2012 - April 2015
  Portland State University — *(On leave) Portland, OR*
- **Bachelor of Science in Physics** — August 2006 - May 2011
  Humboldt State University — *Arcata, CA*

Skills

Operating Systems, Languages, & Applications

- **Fluent:** Linux/Unix, OS X, Windows, Javascript/Node/npm, Python/Django, Git/Github, Travis-CI, HTML/CSS/SCSS, Ansible, Mathematica, LabVIEW, LaTeX
- **Familiar:** Go, Ruby/Rails, Flask, electron, sh, MySQL, SQLite, PostgreSQL, Assembly, C/autotools, regex, LevelDB
- **On the Radar:** Haskell, Rust, Puppet, Docker/Rocket, NixOS

Character: Demonstrated proficiency with public communication skills. Exceptional troubleshooting and debugging skills. Adept at rapidly learning new programming languages and tools. Local and remote collaborative skills and methods. Excels at teaching and working with others. Goal driven. Positive.

Publications, Talks, Community Involvement & Leadership

- **W3C Social Web Working Group** — July 2014 - June 2015
  Invited Expert
- **Code for Portland** — March 2014 - July 2015
  Organizer & Volunteer
- **"Development of an Online Teaching Field Emission SEM"** — February 2014
  Proceedings of the Oregon Academy of Science
- **Homebrew Website Club** — December 2013 - July 2015
  Organizer
- **"Remote Operation of a Scanning Electron Microscope using WebRTC"** — October 2013
  WebRTC Camp
- **"Distributed Social Web Interactions with Semi-Static Websites"** — August 2013
  OSFW3C Workshop on Social Standards: The Future of Business
- **IndieWebCamp** — 2013,2014,2015 - Present
  Participant and Organizer
- **PSU Manufacturing and Fabrication for the Sciences Club** — 2013 - December 2014
  Officer
- **"Sub-millimeter Positioning and Sensing for Short-Range Gravity Tests"** — 2011
  Proceedings of the 25th National Conference on Undergraduate Research (NCUR)

Recent Open Source Contributions

- **Node Learnbook** — E-Book
  github.com/bcomnes/node-learnbook
  - A book about how and where to learn about node and javascript
- **SEMterface** — Node.js
  github.com/SEMterface
  - Enables realtime remote operation of a JEOL-6400 Scanning Electron Microscope.
  - Custom web application uses WebRTC and Web Sockets to provide realtime interactions with the microscope.

Github: See https://github.com/bcomnes for more contributions!