

# Joshua Holbrook

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## Employment History:

*Senior Software Engineer, Finance Products*  
Squarespace Inc, New York NY

*July 2019 - January 2020*

- Acted as a de facto lead during outages and firefighting scenarios
- Designed and instituted an on-call process and rotation to ensure that firefighting and triage work was spread evenly throughout the team
- Identified and implemented several improvements to development, CI and deployment tooling and processes to improve team velocity
- Spearheaded the development of a proposal to onboard billing and payments data onto Squarespace's Data Vault based reference architecture to reduce bugs in reports
- Spearheaded the development of multiple proposals to rearchitect reporting systems to more closely match that of industry standard business intelligence tools
- Led discussions for the team's Domain Driven Design book club
- Led group meetings, including the monthly Data Engineering Council meeting
- Researched and planned a documentation overhaul epic including a board in Jira
- Executed product research with accountants to design more accurate tax accounting reporting
- Interviewed accountants to develop bridge reports for material production issues with reporting

*Senior Developer, Data Engineering*  
Gizmodo Media Group, New York NY

*September 2016 - May 2019*

- Acted as the technical lead for a multi-quarter project to deliver fine-grained commerce analytics for Kinja's Amazon affiliate programs involving three teams across three offices and multiple contractors
- Architected and developed a system to automate A/B testing processes with a backend API and a frontend dashboard to make testing more approachable to product managers in our organization
- Ported the organization's backend framework from Scala and Play to Python and Flask to enable the development of backend services by the data team
- Participated in architecting and developing a greenfield data warehouse using Python, AWS RedShift and Looker
- Took ownership of Kinja's internal analytics pipeline, leading the rewrite of Scala Spark jobs to PySpark, migrating the event ingestion architecture to use AWS Kinesis Firehose, and implementing robust monitoring and alerting
- Acted as the domain expert for Kinja's collaborative filtering based recommendation systems
- Planned sprint-level work for a commerce recommendations data science exploration project in Asana
- Played a direct role in mentoring two junior employees

*Software Developer, Copilot Backend*  
Condé Nast, New York NY

*February 2014 - August 2016*

- Played a pivotal role in designing, developing and iterating on a greenfield HATEOAS-inspired relationships API for Copilot to enable flexible graph relationships across content types for over a dozen brands
- Worked in a cross-team effort to develop a data model for the replatforming of Style.com onto Copilot and rebranding to Vogue Runway
- Led the data migration for the replatforming of Style.com onto Copilot and rebranding to Vogue Runway
- Designed and developed an API to import content from Google spreadsheets owned by Vogue producers into Copilot
- Developed deploy tooling built on top of CodeDeploy and Hieradata to support Condé Nast's initial migration from Savvis to AWS
- Led a project to iterate on Copilot API's publishing semantics
- Participated in on-call for Copilot API services, including during the launch of Vogue Runway during New York fashion week in Spring 2015

*Software Engineer*  
i.TV LLC, Provo UT

*August 2013 – November 2013*

- Developed backend systems with CoffeeScript, MongoDB and RabbitMQ for supporting the development of the TVTag product
- Developed new features for and debugged memory leaks in internal content creation and management tools with CoffeeScript and AngularJS to enable real-time creation and curation of live content created over the course of a full TV episode

*Head of Support*  
Nodejitsu Inc., San Francisco CA

*July 2011 – December 2012*

- Managed and trained other support engineers
- Monitored support channels such as IRC, email and Twitter for support requests
- Triaged and investigated live production issues with Nodejitsu software, servers and cloud providers
- Maintained, fixed bugs and made releases of modules in the Flatiron framework and Nodejitsu's open source software
- Developed and maintained internal support infrastructure and tooling

### **Open Source:**

*Cackledaemon*

*April 2020 - May 2020*

A PowerShell module for managing a Windows 10 Emacs install that includes an installer and update wizard, functions for daemon management and a notification icon built with Windows Forms

*PSeudo*

*April 2020*

A PowerShell module for ergonomic privilege escalation built on top of an open source prototype using named pipes and .NET binary serialization

*IHydra*

*January 2020 – February 2020*

A Jupyter kernel for hydra, a video synth written in JavaScript using WebGL, using code from the IJavaScript Jupyter kernel, Electron and React

*Korbenware*

*April 2019 – Present*

An ongoing effort to write a Linux desktop management suite using Python and Twisted, which includes an implementation of XDG autostart, a XDG spec compliant application launcher, an XDG menu TUI, journald log integration and a Dbus RPC framework

*twisted\_ipython*

*June 2019*

An IPython extension using Crochet that enables Twisted autoawait support in IPython and Jupyter notebooks

*Pye*

*July 2011 – Present*

A Python port of the Node.js EventEmitter abstraction, with special support for asyncio coroutines, Twisted coroutines, Trio coroutines and Executors

*Ecstatic*

*November 2011 – May 2019*

A popular static file serving module for Node.js with support for Express and the standard library HTTP web server, including a CLI component, support for caching headers, CORS headers, file listing and zipped payloads.

### **Skills:**

#AWS CloudFormation #AWS CodeDeploy #AWS EC2 #AWS EMR #AWS Elastic Beanstalk #AWS Lambda #AWS RDS #AWS Red-Shift #AWS S3 #AWS SQS #Ansible #Apache Airflow #Apache CouchDB #Apache Solr #Apache Spark #Bash #BigQuery #ChatOps #DataDog #Docker #HTML #JSON #JavaScript #Jenkins #Jupyter #Kinesis Firehose #Kubernetes #LaTeX #LookML #Markdown #Microservices #MongoDB #MySQL #NixOS #Node.js #Numerical Methods #Pandas #PostgreSQL #PowerShell #Puppet #Python #REST #RabbitMQ #React #Redis #Scala #Terraform #Vagrant #Electron #Twisted

### **Education:**

*Master of Science in Mechanical Engineering*

*Sept. 2009 – May. 2011*

University of Alaska Fairbanks

*Thesis: The Determination of Anisotropic Thermal Conductivity with Thermal Needle Probe Measurement*

*3.62 GPA*