

Josh Holbrook

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Projects

- PSeudo ★32 April 2020
A PowerShell module for privilege escalation using named pipes and .NET binary serialization
- twisted_ipython ★4 June 2019
An IPython extension using Crochet that enables Twisted autoawait support in IPython and Jupyter notebooks
- pyee ★211 July 2011 - Present
A Python port of the Node.js EventEmitter with special support for concurrency and async frameworks
- ecstatic ★912 November 2011 - May 2019
A fully-featured static file serving middleware for Node.js

Employment History

- DoubleVerify, Social Integrations July 2020 - Current
Staff Data Engineer New York NY
- Led project planning, design and development of a greenfield hybrid streaming/batch pipeline for managing allow lists for Facebook videos, shipping an MVP in only 7 weeks and scaling to tens of millions of entries
 - Developed an internal data engineering framework with a focus on first-class PyCharm support, confidence in correct code and rapid-paced development
 - Owned the Engineering Bi-Weekly meeting, where engineers shared department-wide updates and gave presentations on a bi-weekly basis
 - Mentored and trained other engineers on the team through pair programming, documentation and videos
- Squarespace Inc, Finance Products July 2019 - January 2020
Senior Software Engineer New York NY
- Supported and maintained financial data pipelines used for ASC606 revenue recognition, cash and tax reporting and financial planning for a multi billion dollar web site host
 - Spearheaded proposals to onboard billing and payments data onto a data vault reference architecture to improve velocity and decrease bugs, and to rearchitect reporting to mirror industry standard BI tools
 - Designed and instituted an on-call process to ensure that support work was spread evenly
- Gizmodo Media Group, Data Engineering September 2016 - May 2019
Senior Developer New York NY
- Acted as the technical lead to deliver Amazon affiliate program commerce analytics involving three teams and multiple contractors, providing experiment data used to optimize conversions on a front page redesign
 - Architected an A/B testing API so experiments could be configured with a web UI instead of disparate scripts
 - Owned internal analytics and recommendation systems that served over 100 million users a month; overhauled legacy systems and implemented monitoring, vastly decreasing total outages and virtually eliminating undetected outages
 - Designed, built and maintained ETL jobs for a rapidly-growing data warehouse using Python, AWS RedShift and Looker
 - Ported the organization's microservice framework from Scala and Play to Python and Flask to enable development of services by the data team
 - Mentored junior employees on the team
- Condé Nast, Copilot API February 2014 - August 2016
Software Developer New York NY
- Wrote HATEOAS-inspired graph-capable content relationships API that supported the data modeling needs of over a dozen brands using Condé Nast's all-new internal CMS
 - Worked on the team that launched Vogue Runway's real time fashion show coverage during New York Fashion Week, including leading a data migration that replatformed over a decade of content
- i.TV LLC August 2013 - November 2013
Software Engineer Provo UT
- Developed new features 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

Nodejitsu Inc
Head of Support

July 2011 – December 2012
San Francisco CA

- 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

UAF Institute of Northern Engineering
Research Assistant

January 2010 – August 2010
Fairbanks AK

- Designed and ran finite element models using COMSOL and MATLAB to study anisotropic thermal conductivity in snow using needle probes
- Analyzed geographical information using Perl, Python, MATLAB and C++

UAF Mechanical Engineering Department
Teaching Assistant

September 2010 – May 2011
Fairbanks AK

- Graded homework and designed quizzes for ES 346, Basic Thermodynamics
- Graded homework for ME/ENVE 456/658, Energy and the Environment
- Graded homework for ME 403, Machine Design
- Redesigned and conducted laboratory experiments for ME 415, Thermal Systems Lab

Education

Master of Science, Mechanical Engineering
University of Alaska Fairbanks
Thesis: *The Determination of Anisotropic Thermal Conductivity with Thermal Needle Probe Measurement*

September 2009 – May 2011
GPA: 3.62

Bachelor of Science, Mechanical Engineering(Minor: Mathematics)
University of Alaska Fairbanks

August 2005 – May 2010
GPA: 3.67

Awards

Center for Global Change Student Research Grant
Project: *Determining Anisotropic Thermal Conductivity of Snow with Needle Probe Measurements*
Award: \$8200

May 2010

3rd Place, 2020 Campus Research Day Undergraduate Symposium
Project: *Development and Benchmarking of Optical Touchscreen User Interface Technology*
Award: \$1000

April 9th, 2010

Undergraduate Research Grant
Project: *Development and Benchmarking of Optical Touchscreen User Interface Technology*
Award: \$2250

October 2009

Skills

Languages: Bash, JavaScript, PowerShell, Python, Scala

Operating Systems: Ubuntu Linux, Fedora Linux, Arch Linux, Raspberry Pi OS, MacOS, Windows 10

Cloud Platforms: AWS, GCP, DigitalOcean, Heroku

Databases: PostgreSQL, MySQL, SQL Server, BigQuery, RedShift, Vertica, SQLite, CouchDB, MongoDB, Solr

Frontend Engineering: CSS, HTML, Canvas, JSON, Django, Express, Play Framework, jinja2, React, Electron

Backend Engineering: NGINX, gunicorn, Flask, Hapi, Node.js, REST, RabbitMQ, Redis, asyncio, Twisted

Data Engineering & Data Science: Airflow, Spark, Jupyter, LookML, Kafka, Schema Registry, Pandas, PyTorch

DevOps: Ansible, DataDog, Docker, Jenkins, GitLab CI, Kubernetes, NewRelic, NixOS, Puppet, ChatOps, systemd, Terraform, Vagrant