

# Josh Preuss

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## EXPERIENCE

## David Energy – Software Engineer

New York, NY | Feb 2022 – Present

- Productionized webapp and scheduled jobs through introducing new logging, monitoring, and alerting tools and processes
- Burned down error log count until all errors were meaningful
- Wrote a new core system component to dispatch Demand Response events to customer thermostats by introducing CDK and CodePipelines, and adding a Lambda function
- Took ownership of communication with key SaaS vendor and contractors

## DataRobot – Senior Software Engineer & Team Lead

Boston, MA | Jul 2019 – Jan 2022

- Lead on a new machine learning infrastructure product, supervising a team that grew from 0 to 10+ people. This product allows customers to create pipelines combining tasks with their own ML algorithms with DataRobot native modeling algorithms. Brought product from proof of concept to general availability.
- Developed, operated and secured job scheduling infrastructure that ran above product on EKS.
- Ran Kubernetes tech talk group at DataRobot
- Vetted, introduced and hand-tuned Gaussian Process Classifiers for the main product, which involved diving into the algorithms to understand how and when they excel.
- Owned quarterly model performance regression QA process for the whole product, written in R. Decentralized and polished the process and trained each team's QA engineer to own it.

## Amazon Alexa AI – Software Development Engineer

Cambridge, MA | Sep 2017 – May 2019

- Led migration to execute science tools on a new, more secure experimentation platform. Collaborated across teams with scientists, InfoSec, and the platform's engineers as an initial customer.
- Secured the NLU model training and testing infrastructure, and brought attention across Alexa to a systemic security flaw.
- Designed and built in Java, python and Spark the organization's first customer-facing service, allowing domain-specific teams and third-party scientists to securely craft NLU ground truth in parallel.

## Amazon EC2 – Software Engineering Intern

Seattle, WA | Jun 2016 – Aug 2016

- Designed, wrote, tested, and deployed a service worldwide to automate EC2 host recovery.
- The service was written using Ruby and SQL, and saves Amazon tens of millions of dollars per year in recovered compute capacity.

## University of Maryland – Undergraduate Teaching Assistant

College Park, MD | Sep 2015 – Dec 2015

- Taught a discussion class for a CMSC330 - PL Theory under Prof. Michael Hicks, taught in Ruby, OCaml and Prolog.
- Developed a new student project where students found vulnerabilities in a ruby FTP server, and patched them.

## EDUCATION

## University of Maryland, College Park - B.Eng. Computer Engineering

- University Honors, Banneker Key Scholar, National Merit Scholar
- Member of the hiking club, cybersecurity club, bus driver, radio DJ for 3 years, regular hackathon attendee.
- Additional summer internships in robotics at Autonomous Marine Systems, and IOT Cybersecurity at CyberPoint

## SKILLS

- **Data Science/ML:** SQL, Gaussian Processes, Scikit-learn, R
- **Languages:** Python, Java, C, Ruby, Assembly, Javascript, Rust
- **Hard:** Kubernetes, Docker, Linux, Kibana, Argo, DynamoDB, SWF, MongoDB, Spark, CloudFormation
- **Soft:** Agile, Kanban, stakeholder management, CLI Design, Management, Refactoring, Oncall Process

## PROJECTS

**TipTip** Co-Founder Jun 2020 - Feb 2021  
Created plugin, backend and website to enable one-click microdonations for blogs and news websites.

**Signal Processing Cup** Dec 2017 - Mar 2017  
For Computer Engineering Capstone project, I competed with a three person team to implement a music beat tracking algorithm. Won 3rd place of 40 teams at ICASSP 2017