

Tim Burke

667-213-7900

linkedin.com/in/tburke2

timburke.co

timothy.e.burke@gmail.com

github.com/timothyeburke

Ithaca, NY

## Experience

### **VTS – 05/2021 – PRESENT**

#### ***Staff Software Engineer, Platform Engineering***

Work with teams across Product Engineering to containerize their applications and develop training sessions on Amazon Web Services for the engineering community in preparation of a move from Heroku to AWS. Investigate performance issues not solvable with vertical scaling and recommend application architecture designs to employ high-availability and high-performance through horizontal scaling.

### **THE NEW YORK TIMES – 03/2020 – 05/2021**

#### ***Senior Software Engineer, Delivery Engineering***

Consult with teams across the engineering organization to assess the production readiness of systems in areas like application and architecture design, release and deployment management, cloud account / project configurations, security and secrets management, monitoring and metrics, and scaling / capacity planning. Develop an internal product for teams to self-assess the operational maturity of their systems and practices, based largely on the Google Cloud CRE Production Maturity Assessment, to drive leadership and product insight into needed areas of improvement beyond feature development. Worked as the backup tech lead on the cross-engineering election readiness team, an effort that included in-production stress testing, on-call coverage organizing, external vendor coordination, active monitoring of systems and traffic, and triaging issues in the months leading up to and during the 2020 US election week. Serve as an engineering member of the tech hiring working group, ensuring consistent, fair, and equitable hiring practices while helping to grow the engineering organization.

### **MINER & KASCH DATA SCIENCE – 09/2018 – 02/2020**

#### ***Senior Platform Architect***

Design and implement cloud system architectures and computing solutions for data storage, processing, and exploration, load-balanced server-based and serverless/containerized web applications and APIs, and implement continuous integration and deployment pipelines. Directly educate clients and their staff on security topics like identity and access management policies, API and CLI access key management, storage encryption, SSL, and secrets management. Consult with data scientists and client teams to improve software engineering and security hygiene. Develop materials for and deliver classroom training on cloud computing and security, and successfully presented at the Maryland Data Science Conference on leveraging quickly-scalable cloud technologies for data science projects.

### **CORNELL UNIVERSITY – 06/2016 – 09/2018**

#### ***Senior Software Engineer, Office of the Vice Provost for Research***

Build and maintain a research finance dashboard and reporting system that gives academic researchers enough information to reduce daily dependency on financial administrators. In a single-page application, show financial summaries and visualizations. Guard data behind an access controlled API with user account delegation. Prototype AWS infrastructure, and when productionizing features, make that infrastructure automated and part of CloudFormation-managed stacks. Advocate for code quality and testing coverage by requiring automated testing on feature changes before pull requests can be reviewed. When reviewing code, ensure adherence to agreed quality standards. Analyze sets of data to discover relationships that are useful for faculty and administrators to understand, prototyping new analyses in Jupyter notebooks using Python and Pandas, turning the resulting work into data extracts.

## Certifications

- AWS Certified Cloud Practitioner
- AWS Certified Solutions Architect Associate (expired)

## Relevant Skills

- CI/CD (CircleCI, Jenkins, Drone, Github Actions)
- Security Hygiene Practice
- Site Reliability Engineering

## Languages / Tools

- JavaScript / Node
- Ruby on Rails
- Python / Pandas / Jupiter
- Golang
- HTML / CSS
- Docker / Kubernetes
- Terraform / CloudFormation

## **MARIANA TEK – 12/2015 – 05/2016**

### ***Front End Developer***

Build the start of a reservation and class management front-end application. Set up continuous integration testing for front-end applications including running tests and enforcing code linting/formatting practices. Create a standard battery of JavaScript, HTML, and CSS questions to use when interviewing front-end candidates and conduct interviews. Set up Hubot and add plugins for integrating with Pivotal Tracker and Github, and to show pug pictures in Slack.

## **KIT CHECK – 01/2015 – 11/2015**

### ***Front End Engineer***

Build and update two complex single-page applications used to track medications as they move through hospitals. Aggressively refactor inefficient or poorly-designed code to keep quality high and to ensure future maintainability. Build Hubot plugins to integrate things into Slack. Peer review pull requests submitted by other members of the team. Travel to customer sites and observe/study users in their natural habitats (usually pharmacy for pharmacists, operating rooms for anesthesiologists) to better understand their work environments, workflows, tech-savvy-ness, and education.

## **RINGTAIL DESIGN – 01/2013 – 01/2015**

### ***User Experience Developer***

Build touch-interactive data visualization software systems for various input forms, from tablets and phones all the way up to large multi-touch displays. Study end users and make detailed personas. Organize and plan recruiting events, and recruit new team members, conducting interviews to grow a new office from two to ten people.

## **JOHNS HOPKINS UNIVERSITY APPLIED PHYSICS LABORATORY**

### ***Associate Software Engineer – 02/2012 – 01/2013***

Function as UI developer and release manager for new department and enterprise web applications. Serve as a member of the Enterprise IT Department's User Experience team. Create user-interface mockups and functional prototypes, incorporating user and management feedback. Mentor two interns during the summer of 2012. Serve as Outreach Coordinator for APL's LGBT employee group, Allies in the Workplace. Attend outside recruiting events in support of the laboratory college recruiting office.

### ***Software Engineering Intern – 06/2009 – 02/2012***

Build data-driven web applications, incorporating multiple data sources including MS Access, MS SQL Server, and Oracle financial databases. Develop SQL queries, stored procedures, functions, and views to facilitate data access. Test and adjust web applications on multiple browsers and platforms to ensure a consistent user experience. Work directly with Project Managers and end-users to gather requirements for functionality and user-interface design on multiple applications. Create user-interface design mockups and incorporate target end-user and management feedback. Design end-user training documentation for applications.

## **Education**

University of Maryland, Baltimore County – Graduate Coursework, 2012-2013

University of Maryland, Baltimore County – BS in Computer Science, 2009 – 2012