# **Brian Roth**





# **EDUCATION**

Northeastern University, Khoury College of Computer Sciences, Boston, MA

Sept. 2014 - May 2018

Bachelor of Science in Computer Science

Relevant Courses: Artificial Intelligence, Database Design, Object-Oriented Design, Algorithms

& Data, Computer Systems, Logic & Computation, Discrete Structures,

Human-Computer Interaction, Programming Languages

#### TECHNICAL KNOWLEDGE

Languages: Node.js/JavaScript/Typescript, React.js, Python, MySQL/Postgres, Ruby/Rails,

Java, Elm

Tools: Docker, Kubernetes, AWS, Google Cloud Platform, Apache Airflow, Git

Other: gRPC, GraphQL, WordPress.org

### **EXPERIENCE**

### Embark Veterinary, Boston, MA

Senior Software Engineer

Oct. 2022 - Present

- Introducing infrastructure-as-code via AWS CDK in 4+ applications for deployment consistency and automated configuration
- Incorporating CI/CD workflows in GitHub Actions to publish private npm packages enabling code reuse
- Gathering and processing stakeholder input in considering and rolling out new patterns to engineering squads

Software Engineer II May 2021 - Oct. 2022

- Led migration of post-purchase experience web app from Elastic Beanstalk to Elastic Container Service resulting in fewer production outages, safer deploys, and containerized development
- Championed use of Apache Airflow for business-critical jobs leading to 50% runtime reduction
- Implemented full-stack features in Node is/React to support new SKU and new product vertical launch

# Optimus Ride, Boston, MA

Technical Lead, Fleet Software

Oct. 2020 - May 2021

- Defined overall technical architectures for greenfield services like dispatch system, remote monitoring for driverless fleet, etc.
- Orchestrated Product-Fleet Software team relationship, working closely to plan sprints, backlog grooming, retros, etc.
- Mentored and oversaw a team of six software engineers through bi-weekly 1:1s, code reviews, technical review sessions, etc.
- Nominated as member of security steering committee to create company-wide security strategies, performed NIST cybersecurity framework audit

Software Engineer, Data Engineering

Jan. 2020 - Sept. 2020

- Spearheaded new data engineering pipeline and architecture utilizing Apache Airflow, Kubernetes on GCP, BigQuery for batch processing of vehicle data
- Led development and defined requirements of business intelligence system for Product & Operations teams utilizing BigQuery, Data Studio
- Built tools like generalized desktop authentication module for company-wide use, dataset search tool for other engineering teams to identify datasets of interest
- Reduced data storage costs to avoid exponential growth utilizing caching, intelligent retention policies, Python gRPC proxy between storage buckets and clients

Software Engineer, Fleet Software

June 2019 - Dec. 2019

- Led migration of services from Scala Play to Python gRPC alongside Typescript bindings

- Developed remote monitoring system for driverless fleet of vehicles made up of React web apps and Python services utilizing gRPC, PubSub, IoT Gateway

# PlacePass, Boston, MA

Jan. 2017 - May 2019

Senior Software Engineer

- Directed front-end platform architecture utilizing Ruby on Rails and React with performance, scalability, and modularity in mind (25,000 transactions per minute)
- Coordinated migration from Heroku to AWS infrastructure to reduce costs by 83%/month
- Hired and managed intern/co-op software engineers by providing guidance and mentorship
- Implemented whitelabel, multi-tenant architecture powered by CMS that allows business teams to spin up new partner sites without engineering intervention

# Web Developer, Boston, MA

Aug. 2009 - Present

Freelancer

- Launched and sold technology news website using WordPress that reached 50,000 monthly page views
- Developing new websites for clients that include local companies and Brigham and Women's Hospital
- Maximizing social media outreach for local businesses by identifying new marketing strategies