Brian Roth

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EDUCATION

Northeastern University, Boston, MA   Sept. 2014 - May 2018
Khoury College of Computer Sciences
Bachelor of Science in Computer Science

Relevant Courses:	Artificial Intelligence, Database Design, Object-Oriented Design, Algorithms & Data Collection, Integration, and Analysis, Computer Systems, Logic & Computation, Discrete Structures, Human-Computer Interaction, Programming Languages
Honors:	**GPA: 3.6/4.0**, Dean's List
Activities:	Greece Study Abroad Program, CCIS Fellows, NU Hacks, N.U.*in* Alumni Ambassador, CCIS P2P Network Mentor, Orientation Volunteer, Senior developer in student-led design firm

COMPUTER KNOWLEDGE

Languages:	HTML, CSS/Sass, JavaScript, jQuery, React.js, Python, Node.js, Elm, PHP, Java, MySQL/Postgres, Ruby/Rails, Lisp/Scheme (Racket)
Tools:	Docker, AWS, Google Cloud Platform, Heroku, Adobe Creative Suite, Git
Other:	gRPC, Search engine optimization, WordPress.org

EXPERIENCE

Optimus Ride, Boston, MA
Technical Lead, Fleet Software   Oct. 2020 - Present

- Defining overall technical architectures for greenfield services like dispatch system, remote monitoring for driverless fleet, etc.
- Orchestrating Product-Fleet Software team relationship, working closely to plan sprints, backlog grooming, retros, etc.
- Mentoring and overseeing a team of six software engineers through bi-weekly 1:1s, code reviews, technical review sessions, etc.
- Planning team budget for next three years, headcount needs, hiring process, Agile processes, and resource management
- Nominated as member of security steering committee to create company-wide security strategies, performed NIST cybersecurity framework audit
- Successfully launched company's flagship native mobile app written in React Native/Typescript for hailing autonomous rides to reach client-imposed deadline on-time

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
- Implemented Jenkins jobs for CI/CD pipeline to deploy new code to cloud environments
- 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

Tank Design, Boston, MA   Jan. - June 2016
Developer Co-op
- Created HTML buildkits and CMS websites for clients such as FedEx, Citizens Bank, and Genzyme
- Analyzed client websites for technical debt and presented/programmed suggestions for improvement
- Implemented internal security monitoring tool in PHP, MySQL, and AngularJS

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

INTERESTS

Technology news, nature & city photography, traveling, baseball, basketball, alternative hip hop, local volunteer organizations, rock climbing