Nicholas Boshart

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EDUCATION

Georgia Institute of Technology   Atlanta, GA
Master of Science in Computer Science   *GPA: 3.83*   *Expected Dec. 2022*
Bachelor of Science in Computer Science   *GPA: 3.87*   *Aug. 2018 – Dec. 2021*
- **Coursework:** Data Structures and Algorithms, Object-Oriented Programming, Database Systems, Computer Organization and Networks, Machine Learning, Artificial Intelligence, Applied Combinatorics, Graph Theory

EXPERIENCE

Splunk, *Software Engineering Intern*   Jun. 2022 – Sep. 2022
Technologies: Golang, Bash, OpAMP, OpenTelemetry, Amazon EC2, GitLab CI/CD   *San Jose, CA*
- Contributed heavily to proof-of-concept planning and development for a highly-scalable, cloud-based management platform, projecting to reduce forwarder-related maintenance costs by over 60% across 120,000+ customer machines
- Integrated OpAMP network protocol and concurrent package-syncing functionality into existing platform to enable remote management of large fleets of agents. Also proposed practical optimizations to original, open-source protocol
- Exposed, documented, and enacted attacks on 45+ security vulnerabilities found in OWASP's Juice Shop

Amazon, *Software Development Intern*   May 2021 – Aug. 2021
Technologies: Java, JavaScript, Node.js, AWS Lambda, API Gateway, DynamoDB, CloudWatch   *Los Angeles, CA*
- Designed and implemented full-stack platform used to standardize team-specific scheduling information, automate needless ticketing processes, and provide a comprehensive tool through which international teams can communicate
- Deployed completed application to production environment with 5,000+ lines of code and 100% test coverage (via Mockito/JUnit/Jest), saving an estimated 1,200+ hours of development time within the organization each year
- Collaborated with various cross-organizational teams to create/assess threat models used for internal API access

T-Mobile, *Software Engineering Intern*   Jun. 2020 – Aug. 2020
Technologies: Python, Docker, Kubernetes, Consul, Vault, HashiCorp's HCL, GitLab CI/CD   *Dallas, TX*
- Developed internal microservice used to aggregate, encrypt, and centralize application configurations/secrets within the Automation Platform organization. Successfully migrated 300+ projects within 2 weeks of launch
- Utilized sidecar pattern alongside Consul and Vault APIs to concurrently monitor real-time app configs, encrypt sensitive data, and securely deliver private keys to the associated repos using GitLab's CI tools

Hack4Impact, *Engineering Manager*   Jan. 2019 – Dec. 2020
Technologies: TypeScript, Node.js, React.js, Express.js, MongoDB, Firebase, GitHub CI/CD   *Atlanta, GA*
- Managed multiple teams of 10+ designers and developers to effectively create, deploy, and maintain full-stack, open-source solutions for nonprofits on both a local and national scale
- Spearheaded development process by constructing product roadmaps, delegating user stories, conducting code review, and iteratively incorporating client feedback into the product with respect to Agile methodologies

PROJECTS

PubCrypt, *Secure and public data sharing over IPFS.*   Jan. 2022 – Apr. 2022
- Designed and developed CLI tool used to publish, share, and download sensitive information using IPFS's distributed, public network. Built on Golang's Cobra framework with support from auxiliary shell scripts
- Utilizes Shamir's Secret Sharing algorithm to partition encryption keys into distinct shares, a pre-specified number of which can be pooled and combined among recipients to reconstruct and decode the original file/secret

GT Scheduler, *Course scheduler for Tech's student body.*   Jan. 2020 – Dec. 2020
- Managed development of full-stack application aimed to combine and improve upon resources offered to Tech's student body during the course registration process. Currently in use by thousands of students each semester
- Implemented real-time seating data, course prerequisite information, and a map of schedule-specific class locations into the application through detailed web scraping and interaction with Mapbox's geocaching/vector tile APIs

TECHNICAL SKILLS

Languages/Frameworks: Golang, Java, JavaScript, Python, Bash, Node.js, React.js, Express.js, Flask, PostgreSQL
Technologies/Tools: AWS, Git, Docker, Kubernetes, MongoDB, Firebase, IPFS, GitHub & GitLab CI/CD