Brandon Wang

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Experience

Plaid | *Senior Security Software Engineer*   08/2023 - now

- Shipped a redesigned AWS employee authentication service that decoupled IAM policies from IAM roles and enabled employees to request just-in-time access to 500+ IAM policies and 150+ IAM roles
- Launched an inter-service zero-trust authentication and authorization layer, handling 150,000+ requests per second with a 99.995% uptime, to significantly limit the blast radius of a security breach
- Enforced least privilege on employee permissions, revoking over 75% of unused permissions and reducing the impact of potential compromised endpoints
- Mentored an intern on a full-stack product, providing technical guidance and career growth feedback, that enabled our team to identify weak service access control policies
- Led the internal authorization work stream comprised of 3 engineers, guiding the work on permissioned access to k8s and offline data

Software Engineer   02/2021 - 08/2023

- Developed a webhook that triggers notifications when an end user opens a new bank account, enhancing clients' ability to deliver seamless user experiences
- Shipped new customization flows in the client dashboard for users' data transparency and account permissioning experiences
- Introduced internationalization to the Plaid Portal and launched it in the Netherlands, significantly advancing Plaid's global expansion and regulatory efforts in the EU

Software Engineer Intern   05/2020 - 08/2020

- Introduced a lightweight API endpoint that resulted in a 45% reduction in latency of loading Plaid Link, a user's main connection to Plaid
- Reduced inbound engineering requests and turnaround time for internal business teams by designing a self-serve tool to configure Plaid Link's error panes, which are crucial to some of Plaid's relationships with financial institutions

Stripe | *Software Engineer Intern*   05/2019 - 08/2019

- Implemented an extendable audit logging protocol for the internal permission management system to increase security observability
- Designed an intuitive, least-privilege API to expose permission audit logs for advanced alerting and metrics tooling use cases

Chicago Mercantile Exchange Group | *Software Engineer Intern*   03/2018 - 08/2018

- Modeled crop yield data with linear regression and neural network models to give insight about the structure of commodities market
- Engineered a versatile and modular metric analytics reporting application

Projects and Publications

Pseudonyms   03/2020 - 03/2021

- Shipped a realtime multiplayer word game that has reached 1,000+ users and been played 7,000+ times
- Implemented a distributed backend that shares socket state via Redis and achieves zero-downtime during redeploys

Toppling Top Lists: Evaluating the Accuracy of Popular Website Lists   10/2022
IMC '22: Proceedings of the 22nd ACM Internet Measurement Conference

Measurement and Analysis of Patching Practices for Industrial Control Systems 06/2017
Proceedings of the ACM on Measurement and Analysis of Computing Systems

Education

University of Illinois at Urbana-Champaign   08/2017 - 01/2021
B.S., Major: Computer Science, Minor: Electrical Engineering, M.C.S.   GPA: 4.0 / 4.0

- Dean's List | James Scholar
- Relevant Coursework: Computer Security I & II, Communication Networks, Distributed Systems, Applied Cryptography
- Recipient of the FMC Award of Excellence and the Robert M. Stephens Engineering Scholarship

Skills

Programming Languages: Python, Go, Java, JavaScript, C++, C, C#, SQL, Swift, Lua
Technologies: Git, AWS, Terraform, Flask, React, MongoDB, Redis