MICHAEL JO

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EDUCATION

University of California, Berkeley

c.o. 2024

Bachelor's, Computer Science

UPE Inductee, Graduate with Honors

Relevant Coursework: Algorithms, Artificial Intelligence, Computer Security, Cryptography, Data Structures, Database Systems, Information Systems, Machine Learning, Machine Structures, Operating Systems, Probability Theory

WORK EXPERIENCE

MICROSOFT

July 2024 — Present

Redmond, WA

Software Engineer

- Delivered end-to-end backend infrastructure for Microsoft Cloud for Sovereignty. Core deliverables include Implementation of Platform Management Groups for Regulated Environment Management, Bicep Code Generation API, Long Running Operations for Landing Zone Configurations, and Improved product reliability (50 -> 80% code coverage) for the Resource Provider solution.
- Contributed mission-critical features for PowerApps Studio Copilot such as OpenAI LLM upgrades.
- Led the implementation of critical security mandates by aligning cross-functional stakeholders (policy teams, infra engineers, PMs), delivering urgent data-privacy compliance features such as Executive Order 14117, Open-Source Security Vulnerabilities, and Service 360 Compliance Items.

Stack: C#, Typescript, ASP .NET Core, Node, Powershell, Bicep, Azure (CSL, CosmosDB)

TIKTOK

May — August 2023

San Jose, CA

Software Engineer Intern (Account Integrity Team)

- Deployed a live risk system against web registrations, banning ~1 million previously uncaught fake accounts in the North America region.
- Created an automated analysis tool of fake account clusters using microservice chains, halving retroactive firefighting costs.
- Optimized data retrieval operations, achieving a 300-400% faster turnaround for hive data queries on antispam automation telemetry.

Stack: Python, Go, SQL (Hive, Clickhouse), ML (Catboost, Notebook)

PROOFPOINT

January — May 2023

Sunnyvale, CA

Part-Time Software Engineer (Cloudmark Test Team)

- Improved build defect analysis coverage by 2-3x by designing a new JZON report format for Cloudmark's smoke testing insights.
- Streamlined DevOps procedures by automating Cloudmark Gateway deployment; reduced manual setup time by 40%.
- Collaborated with DevOps and QA teams to refine deployment strategies regarding CI/CD pipeline transitions with JFrog Artifactory and Jenkins.

Stack: C++, Python, YAML/JSON, Docker, Artifactory, Jenkins

TIKTOK

May — August 2022

Mountain View, CA

- **Software Engineer Intern** (Antispam Team)
- Developed new evaluation metrics to optimize core risk detection systems by removing or merging ineffective rules, reducing rule processing resources of antispam algorithms by 70%.
- Formalized a standard operating procedure (SOP) to retire outdated rules in TikTok's risk surface using new metrics, eliminating the need for periodic maintenance.

Stack: SQL, NIST Frameworks, ML (PyTorch, Pandas)

FASOO

June — August 2021

Seoul, South Korea

- **Software Engineer Intern** (Application Security Team)
- Created and deployed a deliberately insecure flask application (i.e. webgoat test-app) to enhance Sparrow S/DAST capabilities.
- · Conducted penetration testing to uncover and fix critical flaws in Sparrow's OWASP 10 dynamic analysis.

Stack: Python, JavaScript, Flask, Django

PROJECTS

UBUNTU.COM

Mar — April 2024

github.com/canonical/ubuntu.com

LANGUAGES & FRAMEWORKS

Contributor (Open Source)

C#, Typescript, Java, Ruby on Rails, Rust, Go, React, ASP.NET Core, Node.js, SQL, Python (FastAPI, Flask, Django), Javascript (Jest, Cypress, Playwright), Azure (App Services, Functions, Cosmos DB), Docker, Kubernetes, Terraform, GitHub Actions, xUnit, Jest