Alex King

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EXPERIENCE

Google (August 2017 – Present)   Seattle, WA
Senior Software Engineer, Compute Engine Deployment

Implementing features, services, and configuration actuation for [Google Compute Engine](https://cloud.google.com/compute) virtual machines (C++, Go, Python, SQL). Domain involves both node-level virtualization (e.g. [live migration](https://cloud.google.com)) and control plane for highly heterogeneous configuration. During my time, I have worked across the key areas of release deployment, node virtualization, and hardware/software reliability.

- Tech lead of seven-person VM Experiments Framework team, enabling flexible and safe feature rollouts across our vast and heterogeneous fleet of VMs.
    - Design novel non-disruptive hypervisor upgrade mechanisms.
    - Direct engineers on projects supporting rollout velocity, scalability, and simplicity of configuration.
    - Steer direction of Framework in midst of significant product topology diversification.
- (2019-2020) Led development of highly critical GCE service providing NVRAM storage for VMs: hardware specification implementation, API development, scalability, data residency, dependency reduction, SLO definition, disaster recovery planning. Upheld five 9s of regional reliability.
- (2018) Invented policy and automation to proactively predict and avoid VM crashes caused by hardware failure.

Apple (May 2016 – August 2016)   Cupertino, CA
Software Engineering Intern, macOS Performance

- Designed and implemented internal tool to statistically aggregate application usage patterns to increase fidelity of synthetic performance benchmarks for macOS (Python/Flask, Swift).
- Based on work completed, potential impact and presentation performance, selected by VP of Software Engineering Program Kim Vorrath to present to [SVP of Software Engineering](https://apple.com) Craig Federighi and his team.

Nordstrom (June 2015 – August 2015)   Seattle, WA
Software Engineering Intern, Ecommerce

- Prototyped "Smart Clothing Rack" hardware/software product for Nordstrom stores (Node.js, React, MongoDB, Microsoft Surface, NFC). Selected by Ecommerce Engineering Director to present project to VPs of Technology.

EDUCATION

Tufts University (September 2013 – May 2017)   Somerville, MA
Bachelor of Science *summa cum laude* (3.91 GPA), Computer Science
Teaching Assistant ([Programming Languages](https://tufts.edu), [Data Structures](https://tufts.edu))

SKILLS

- Global cloud infrastructure, virtualization, reliability engineering, analysis, communication, leadership, teaching
- **Tools:** C++, Go, Python, SQL, gRPC
- **Writing:** Acute technical and editorial capabilities; blog content featured on ZDNet, BGR, top of Hacker News and many others