Sam Gwydir

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San Francisco, CA

EDUCATION

Texas A&M University, College Station, TX
Bachelor of Science, Computer Engineering, May 2017
Minor in Mathematics

EXPERIENCE

Joyent, Inc.   Software Engineer   June 2017 - Present
San Francisco, California

- Founding member of new cloud platform group with 2 other engineers, now 20+, the youngest member by 10 years
- Communicated cloud design decisions and limitations to Samsung engineers and executives before and after each demo, which decided if our project would continue being funded
- Head developer on Go-based host networking service, dynamically configuring VXLAN overlay networking for up to 64 VMs per Mellanox NIC in less than 2 seconds each
- Fixed post-mortem DTrace bug enabling senior engineer to port of FreeBSD hypervisor to Solaris
- Implemented "hot-inlining" CPU feature toggling to mitigate hypervisor escape vulnerability
- Improved Solaris shared memory deallocation by 100,000x to improve Postgres performance
- Patched Postgres 9.4 to use Intimate Shared Memory improving performance and reducing memory footprint

Groupon   Systems Engineering Intern   June 2016 - June 2017
San Francisco, California

- Benchmarked MySQL and Postgres on FreeBSD with ZFS tunings under OLTP workloads
- Managed a contractor, tasked with finding external engineers to solve ZFS-related crash causing most database falser
- Upstreamed Groupon's FreeBSD ports including circonus-agent, and fixes to included tools like crontab, reducing maintenance work for Groupon

SPEAKING AND OPEN SOURCE

Improving Netdump Performance with iflib AsiaBSDCon BSDCan 2018
- Added client-side buffering to custom UDP stack for 1.7x increase in throughput
- Gave talk at University of Ottawa and Tokyo University of Science with hundreds in attendance

Participating in Open Source Software Horizon School of Technology
- Q&A with students covering how to start contributing to open source projects

The History and Future of Core Dumps in FreeBSD AsiaBSDCon BSDCan vBSDCon 2017
- Delivered talk at every major BSD conference in 2017, including vBSDCon (held by verisign)

TECHNICAL SKILLS

Languages: Go C C++ Python Protobuf LaTeX
Hypervisor: kvm/QEMU bhyve
Frameworks: gRPC
OS: Linux FreeBSD Solaris
Tracing/Debugging: DTrace mdb wireshark