

David Zech

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EXPERIENCE

Sylabs, Inc.

March 2019 – Present

Software Engineer

Remote/Folsom, CA

- Architected and developed an on-premise version of Sylabs Cloud with single-click deployments to major Kubernetes offerings such as AWS EKS, RedHat OpenShift, and Minikube, adding \$200,000+ in additional annual recurring revenue. Written in Go and Helm.
- Designed new, cutting-edge security features for Singularity, leveraging public key cryptography and physically unclonable functions to enforce access control policies on Singularity containers.
- Migrated Sylabs Container Services running on AWS EC2 Virtual Machines to Kubernetes on AWS EKS to provide dynamic scaling of services to reduce cost and offer better stability at peak traffic hours.

Intel Corporation

September 2018 – March 2019

Software Development Engineer

Folsom, CA

- Led the teamwide switch from Java to Go as the primary coding language. Mentored developers in learning new Go specific concepts and developed set of best practices for the entire team to follow.
- Modernized development pipeline by moving source control to GitLab Enterprise and adopting "GitHub Flow" to encourage frequent collaboration between developers.
- Enforced better code reviews by requiring mandatory approvals on git pull-requests. Configured continuous integration tasks to reject pull-requests that contain failing unit tests, preventing unintended regressions.
- Conducted code reviews on all pull-requests within development team.
- Achieved 50% lower latency by rewriting the entire Intel ISecl Trusted Platform Module stack from Java to C with bindings to Go.
- Developed Intel Threat Detection Technology, a framework that detects malicious programs such as side channel attacks or cryptocurrency miners. Written in Go and C++.

Intel Corporation

Summers 2015 – 2017

Software Engineering Intern

Folsom, CA

- Developed several components in Java and C++ for ISecl (previously called CIT) from scratch.
- Added support for the TPM 2.0 chip to enable extra security features in ISecl.

SKILLS

Languages: Go, Java, Python, C/C++, C#, Objective-C, Ruby, Haskell, Ocaml

Full-Stack: Angular 2, Ionic, Meteor, Typescript, Javascript, HTML5, CSS, Ruby on Rails, Java EE, Node.js, MongoDB, PostgreSQL, MySQL

Technologies: Pytorch, scikit-learn, pandas, numpy, iOS SDK, macOS SDK, .NET Framework, WPF, XAML, TCP/IP, LaTeX

EDUCATION

University of California, San Diego

2018

B.S. Computer Science

GPA: 3.8

PROJECTS

Automatic Image Captioning with CNN and LSTM

- Used a Convolutional Neural Network in combination with Long Short-Term Memory network to describe the contents of any given image in English. Written in Pytorch.