# Joel Cooklin

Software Engineer

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## Experience

### Intel - IT / Engineering Computing / Design Hosting
*Hillsboro, Oregon*

Senior Software Engineer — *2017 - Present*

- Leading an effort to improve resiliancy in the design environment
- Improving the CI/CD solution for front-end design at Intel

### Intel - Data Center Group / Solutions Group / Software Defined Infrastructure
*Hillsboro, Oregon*

Senior Software Engineer — *2015 - 2017*

- Technical lead on the open source Snap telemetry framework
- Customer facing solutions engineer with expertise in software automation, delivery and devops

### Intel - IT / Engineering / Automation Solutions Engineering
*Chandler, Arizona*

Senior Software Engineer — *2012 - 2015*

- Delivered IT's first OpenStack based private cloud
- Technical lead for the automation team

### Intel - IT / Engineering / Data Center Engineering
*Chandler, Arizona*

Software Engineer — *2007 - 2012*

- Application hosting subject matter expert and technical lead
- Designed, developed and supported solutions for the IT hosting portfolio including IT's first self-service private cloud backed into VMWare
- Awarded IAA (Intel Achievement Award) for delivering industry leading private cloud

### Intel - IT / Engineering Computing / Applications
*Chandler, Arizona*

Systems Engineer — *2005 - 2006*

- Designed and supported in-house tools and solutions that enabled the design environment
- Designed, developed and supported IEM (Identity Entitlement Management) to manage UNIX user identities and groups globally through the corporate AD infrastructure

### Intel - IT / Engineering Computing / Linux Platform
*Chandler, Arizona*

Systems Engineer — *2003 - 2005*

- Supported a local 2600 node Linux cluster.
- Managed general compute infrastructure including DNS, DHCP, NIS, local switches, remote console servers, build servers and several core infrastructure applications
- Developed and supported NEBulous (later became Intel Platform Provisioning Solution) a PXE based server provisioning framework

### Intel - IT / Engineering Computing / Labs
*Chandler, Arizona*

Systems Engineer — *2001 - 2003*

- Provided EC support to all Chandler labs including the CH3 CV test floor
- Supported several custom builds and one-off solutions found only on the test floor or in labs
- Worked closely with vendors to support custom lab solutions and setups

### Intel - IT / Engineering Computing / Help desk
*Chandler, Arizona*

Systems Engineer — *2001 - 2003*

- Resolved 1st and 2nd level support issues
- Acquired technical breadth, understanding and appreciation for the the components that makes up the Intel design environment

# Education

### Arizona State University

*Phoenix, Arizona*

B.S. Computer Engineering — *2000*

# Projects

### GateKeeper

*private source*

CI/CD for front-end design — *Current*

- Used by most front-end design teams
- Consumes more than a third of all compute cycles
- Tightly integrated with complex tool flows and the massively distributed design grid

### Snap Telemetry

*http://snap-telemetry.io*

A Modern Open Source Telemetry Framework — *2015*

- Plugin based framework written in Go
- Supports plugins written in Go,Python and C++
- Includes a large and growing plugin catalog

### Private Cloud (Open Source Based)

Intel IT's OpenStack based private cloud — *2013*

- Developed and supported integrations on top of OpenStack to support Intel's environment
  - Custom UI
  - Integration with corp identity management and entitlement processes
  - VM image and bootstrap automation
  - Control plane automation
- Intel@IT White Paper - Accelerating Deployment of Cloud Services Using Open Source
- Intel@IT White Paper - Developing a highly available hybrid cloud

### Private Cloud

*private source*

Intel IT's first private cloud — *2011*

- Developed an IaaS solution including a self service portal on top of VMware
  - Providing self service server provisioning at Intel for the first time
- Most services were .NET based
- My contributions were recognized with an IAA (Intel Achievement Award), Intel's highest award

### IEM

*private source*

Identiy Entitlement Management — *2008*

IEM is a collection of tools used in the design environment which allow system administrators, domain administrators, and other UNIX users to manage user access to resources in a cross-platform environment.

- Traditional service oriented architure
- C# was used for the backend and web UI
- Java was used for client side tools and CLIs

### IPPF

*private source*

Intel Platform Provisioning Framework *2006*

IPPF provides baremetal provisioning through a set of tools and services. It included automation to build and maintain a custom pre-boot OS that would communicate with IPPF getting build directives that enabled the bootstrapping of the targe build (Windows, Linux, even Solaris and HPUX in the early days).

- Originally developed in Java it was later ported to C#
- With the combination of the IPPF preboot-OS and the IPPF workflow engine users were able to create workflows to solve complex use cases
- It is still in use today