



## JAMES T SNELL

PROFESSIONAL ENGINEER

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## OBJECTIVE

I love to develop excellent and meaningful devices, products and services. I seek to face interesting unknowns together, with clever & motivated people.

## PERSONALITY

- Self-starter, adaptive and driven
- Comfortable architecting and leading development.
- Very willing to follow excellent leaders
- Life-long exposure entrepreneurial mentality

## BUZZWORD BINGO

Java, Objective-C, C/C++, PHP, Python, Swift3, Javascript, jQuery, Ajax, HTML, CSS, BASH, Geoserver, MySQL, Postgres/PostGIS, Virtualization, svn, git, gitlab, devops, ant, gradle, Agile, continuous integration, Apache2, nginx, CAD (Fusion 360), VHDL, FPGAs, PCB layout, Agile method, DRY principle

## RECENT EXPERIENCE

### LIDAR SERVICES INTERNATIONAL (LSI) & GASRECON (GRI)

SEPTEMBER 2011 TO PRESENT, FULL-TIME

2017	<ul style="list-style-type: none"><li>- Next-gen aerial photography precision-logging prototyping</li><li>- Created automated back-end-fault reporting to Slack</li><li>- Built client-side cross-platform updater &amp; monitor app</li><li>- Continued software dev ownership for LSI &amp; GRI</li><li>- Detailed reporting of potentially tax-break worthy IP</li><li>- Provided in-field support for aerial data collection</li></ul>
2016	<ul style="list-style-type: none"><li>- Coordinated data pipe automation, reduced overhead 60%</li><li>- Devised auto unit test exec and report bundling for LSI</li><li>- Scaled-up use of in-house ESX, Retired EC2 systems</li><li>- Ported all IP from Trac/SVN to Gitlab/git</li><li>- Modernized automated build system for LSI</li><li>- Prioritized R&amp;D, informed by providing end-user support</li><li>- Supported aerial and ground LSI/GRI data collection</li></ul>
2015	<ul style="list-style-type: none"><li>- Coordinated GRI's rapid prototyping, continued from 2014</li><li>- Owned cloud roll-out to EC2. Handled all 20 Linux servers</li><li>- Nights, weekends, Java montages handling new GRI needs</li><li>- Co-integrated higher-accuracy GPS for GRI field systems</li><li>- Flew/supported 5 weeks of LSI data collection in Costa Rica</li><li>- Became sole on-staff developer for both LSI and GRI</li></ul>
2014	<ul style="list-style-type: none"><li>- HW &amp; SW co-integration of new LSI LiDAR scanner</li><li>- Co-integrated new COTS DSLR cameras for LSI aerial ops</li><li>- Commenced rapid prototyping of new GRI sensor platform</li><li>- Organized all DevOps for LSI/GRI Software Team, 3 devs</li><li>- Owned feedback-loop with GRI field ops, steered R&amp;D</li><li>- Continued occasional LSI field operations support</li></ul>
2013	<ul style="list-style-type: none"><li>- GRI (pipe mapping and CH<sub>4</sub> leak detection)</li><li>- Major GRI systems architectural &amp; road-mapping input</li><li>- Flew field support for nearly all LSI projects</li></ul>
2012	<ul style="list-style-type: none"><li>- Joined LSI SW team (2 people). Began Java development</li><li>- Most dev efforts focused upon Matrix; for aerial surveying</li><li>- Continued extensive LSI field operations role</li></ul>
2011	<ul style="list-style-type: none"><li>- Joined LSI in system's support role (hardware focused)</li><li>- Installed, flew, repaired manned aerial surveying systems</li></ul>

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## RECENT PROJECTS

### APP STORE

<https://dawning.ca/apps>

I've recently released a few glorified *hello-world* apps to Apple's App Store. I've especially enjoyed watchOS and macOS dev.

### PERSONAL LAB

I maintain a home environment of Linux and BSD servers. I prototype with them and frequently roll-out my findings beyond my lab. I'm a major lover & very seasoned user of all-things Unix.

### 3D PRINTERS

<https://dawning.ca/df>

<https://dawning.ca/cc155>

I was an early adopter of 3D printers. I've built two, one a heavily altered kit, the other from scratch. My printers have various excellent customizations.

### MRI/CT 3D MODELLING

<https://dawning.ca/skulls>

I've processed & printed complex models derived from actual raw MRI data of my nephew's skull. I recently gained access to the Smithsonian's CT scan database for future such projects.

### MORE

<https://jamesnell.com>

<http://linkedin.com/in/jamestsnell>

<https://github.com/docdawning>

<https://dawning.ca/hackaday>

## COLUMBIA COLLEGE CALGARY

APRIL 2009 TO PRESENT, CONTRACTED-BASIS

I've been involved with Columbia since around 1998. My first job was servicing hardware and providing help desk support. In 2009, I founded their Security Services training eLearning platform using Moodle with AWS-hosted LAMP services. Paypal-driven self-enrolled students have attended our online programs in Security Services ever since.

With Columbia's ESX infrastructure, I coordinate all Linux-based services ever since I first established them. This includes an in-house AD-integrated Moodle deployment (separate to the above mentioned) with over 2000 active student & staff accounts.

I have created and deployed various generations of Columbia's public website (upon Wordpress, on self-hosted Linux servers). This includes establishment and coaching of SEO and Social Media advertising campaigns. We recently have outsourced this to an external firm, though I continue to coach the internal and external team members.

## FORMAL EDUCATION & CREDENTIALS

**PROFESSIONAL ENGINEER DESIGNATION (P.ENG),  
LICENSED BY ASSOCIATION OF PROFESSIONAL  
ENGINEERS AND GEOSCIENTISTS OF ALBERTA  
(APEGA), 2015**

**BACHELOR OF SCIENCE IN COMPUTER ENGINEERING,  
UNIVERSITY OF CALGARY, 2010**

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE,  
EMBEDDED SYSTEMS CONCENTRATION,  
UNIVERSITY OF CALGARY, 2010**

## INTERESTS

I'm perpetually working on personal projects aimed to help me gain new skills. Some of the methods I explore in my home lab end up inspiring systems I deploy professionally. I've listed my most recent projects to the left.