### Recent Experience



**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, continuous integration, Apache2, nginx, CAD (Fusion 360), VHDL, FPGAs, PCB layout, Agile method, DRY principle

#### Lidar Services International (LSI)

#### & GasRecon (GRI)

##### September 2011 to present, Full-Time

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| --- | --- |
| 2017 | - Created automated back-end-fault reporting to Slack - Built client-side cross-platform updater & monitor app - Continued software dev ownership for LSI & GRI  - Prototyped precision-logging for next-gen aerial photos  - Detailed reporting of IP potentially tax-break worthy  - Provided in-field support for aerial data collection |
| 2016 | - Built auto data-pipeline, reduced staff overhead costs  - Scaled-up use of in-house ESX, Retired EC2 systems  - Ported all IP from Trac/SVN to Gitlab/git  - Modernized automated build system for LSI - Devised auto unit test exec and report bundling for LSI  - Prioritized R&D, informed by providing end-user support  - Supported aerial and ground LSI/GRI data collection |
| 2015 | - Coordinated GRI’s rapid prototyping, continued from 2014  - Owned cloud roll-out to EC2. Handled all 20 Linux servers  - Nights, weekends, dev (Java) to handle evolving GRI needs  - Flew/supported 5 weeks of LSI data collection in Costa Rica  - Became sole on-staff developer for both LSI and GRI  - Co-integrated higher-accuracy GPS for GRI field systems |
| 2014 | - HW & SW co-integration of new LiDAR scanner for LSI  - Co-integrated new COTS DSLR cameras for LSI aerial ops  - Commenced rapid prototyping of new GRI sensor platform  - Organized all DevOps for LSI/GRI Software Team, 3 devs  - Owned R&D feedback loop with GRI field ops  - Continued occasional LSI field operations support |
| 2013 | - GRI (pipe mapping and CH4 leak detection) first established  - Major GRI systems architectural & road-mapping input  - Flew field support for nearly all LSI projects |
| 2012 | - Joined LSI SW team (2 people). Began Java development  - Most dev efforts focused upon Matrix; for aerial surveying  - Continued extensive LSI field operations role |
| 2011 | - Joined LSI in system’s support role (hardware focused)  - Installed, flew, repaired manned aerial surveying systems |

#### Columbia College Calgary

## 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://jamessnell.com>

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

<https://github.com/docdawning>

<https://dawning.ca/hackaday>

##### 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. Often, methods I explore in my home lab ends up inspiring systems I deploy professionally. I’ve listed some relevant projects to the left.