I thrive at designing, building and supporting fantastic systems, especially upon Unix type platforms. My R&D experience is focused around web applications and data-collection systems. I seek to build high-impact systems and evolve my skills with clever people.

Below illustrates typical multi-role functions I’ve handled during the bulk of my professional experience, with LiDAR Services / Gas Recon.



**James T Snell**

Professional Engineer

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# **PERSONALITY**

* Self-starter, adaptive and driven
* Comfortable architecting and leading development.
* Very willing to follow excellent leaders
* Entrepreneurial mentality
* Inquisitive & life-long learner

## **top Tech competencies**

Java, BASH, Linux, JavaScript, HTML/CSS, Virtualization (AWS/VMware), svn, git/gitlab, DevOps, Apache2, nginx, Agile method, DRY principle

## **other Tech Competencies**

Ansible, Python, C/C++, Swift, Objective-C, PHP, jQuery, MySQL, Postgres, Geoserver, maven, ant, continuous integration, CAD (Fusion 360), VHDL, FPGAs, PCB layout

#### Novatel Inc (hexagon positioning intelligence)

##### **Applications engineer june 2018 to present**

Applications Engineering at NovAtel entails advanced GNSS problem solving & troubleshooting to support high-profile customers.

* Integration customer support of extreme-precision positioning systems
* Support focus on Linux users & OEM7 API (Lua) adopters
* Inter-team facilitator with desktop software team

#### Lidar Services International (LSI) & GasRecon (GRI)

##### **Integration Engineer SepT 2011 to june 2018**

The below timeline illustrates my evolution in my time at LSI/GRI.

|  |  |
| --- | --- |
| 2018 | - Expanded role to include some business development activities |
| 2017 | - Rolled-out Ansible, retired custom BASH orchestration  - Next-gen aerial photography precision-logging prototyping  - Created automated back-end-fault reporting to Slack |
| 2016 | - Developed data pipe automation, reduced overhead 60%  - Devised auto unit test exec and report bundling for LSI  - 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  - Java montages (nights/weekends) to bootstrap GRI Cloud |
| 2014 | - HW & SW co-integration of new LSI LiDAR scanner  - Commenced rapid prototyping of new GRI sensor platform  - Organized all DevOps for LSI/GRI Software Team, 3 devs  - Owned feedback-loop with GRI field ops, steered R&D |
| 2013 | - LSI spawned GRI (pipe mapping and CH4 leak detection)  - Major GRI systems architectural & road-mapping input  - Flew field operations support for nearly all LSI projects |
| 2012 | - Joined LSI SW team (2 people). Began Java development  - Dev efforts focused at enhancing aerial surveying system  - 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

### RECENT Projects

## App Store

<https://dawning.ca/apps>

I’ve released a few glorified *hello-world* apps to the App Store. I’ve especially enjoyed watchOS and macOS dev. I have a small product roadmap that I’ll implement when my schedule permits.

## 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 Printing

<https://dawning.ca/df>

<https://dawning.ca/cc155>

I was an early adopter of 3D printers. I’ve built two custom machines that suit my needs.

## 3D CAD Modeling

<https://dawning.ca/skulls>

I’ve processed & printed complex models derived from actual raw MRI data. I often print 3D models I design via Fusion360 to help me better organize my home lab.

## More

<https://jamessnell.com>

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

<https://github.com/docdawning>

<https://dawning.ca/hackaday>

##### **SRE CONTRACTOR April 2009 to present**

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, implemented upon AWS-hosted LAMP services. PayPal-driven self-enrolled students have attended our online programs in Security Services, with 26,000 accounts as of May 2019.

With Columbia’s on-prem ESX infrastructure, I coordinate all Linux-based services, dating back to when I first established them. This includes an in-house AD-integrated Moodle deployment (separate to the above mentioned) with over 2,000 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.

Most recently, I’ve provided key input and steering towards a major re-org of Columbia’s internal IT operations.

### 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 INTERNSHIP PROGRAM,

#### University of Calgary, 2010

#### Bachelor of Science in Computer Science

#### Embedded systems concentration,

#### University of Calgary, 2010

### Interests

I often pursue personal projects. These broaden my skills & exercise my creativity. My projects typically focus upon Software, Electrical or Mechanical Engineering disciplines. Many projects positively boost my professional work. I’ve listed some key projects to the left.

I love dogs, cats, espresso and guitars.