

CAREER PROFILE

Experienced **Senior Software Engineer / DevOps Engineer** with deep understanding of current and emerging web and distributed application management technologies. Experienced in full Systems Development Life Cycle (SDLC) based on test-driven development (unit-, integration- and feature-level testing), continuous integration and continuous deployment, daily reliance on distributed version control (git), pair programming, daily stand-ups and weekly sprints, and retrospectives. Working proficiency with Ruby, Java, Python and Javascript. Progressive knowledge, experience and abilities in system architecture, development, implementation and support in an agile environment. Superb client service, analytical problem-solving skills. Upbeat, dedicated, meticulous, accurate, accountable, cost-conscious, graceful under pressure.

EDUCATION

BS, Computer Science; Concentration in Artificial Intelligence – Columbia University, New York, NY Sep 2008 – May 2013

- **Relevant Coursework:** Cloud Computing, Databases, Computer Networks, Artificial Intelligence, Computational Robotics, Data Structures and Algorithms, Machine Learning, Programming Languages and Translators.

TECHNICAL PROFICIENCIES

- **OS Platforms:** Ubuntu Linux 14.04, OS X 10.10, RHEL, CentOS
- **Cloud platforms:** Cloud Foundry, Pivotal Web Services, Heroku, Amazon AWS (ECS, Lambda, EC2, S3, RDS, Route 53, Auto Scaling, CloudFront, CloudWatch, SES), DigitalOcean, EngineYard
- **Web stack:** Nginx (server, proxy and frontend load balancer), Rack, Unicorn, uWSGI
- **Backend web frameworks:** Dropwizard, Ruby on Rails, Django, Jekyll, Flask, Cactus
- **Frontend (JS) web frameworks:** Angular, Backbone
- **Databases:** PostgreSQL, SQLite, Redis, MySQL, Oracle 10g
- **Orchestrators:** Salt, Ansible
- **Cluster managers:** Consul, Kubernetes, Terraform
- **Deployment & Packaging:** Cloud Foundry, BOSH, Vagrant, Packer, Docker, FPM
- **Backend Languages:** working knowledge of Ruby, Python, Java, NumPy, SciPy
- **Frontend Languages:** working knowledge of HTML/Haml/Slim, CSS/Sass, Coffeescript, Javascript, jQuery
- **Test-driven Development:** Junit, BATS, RSpec, Cucumber, Jasmine, Nose
- **Productivity tools:** Vim, Git, Github, Sublime text editor, Notational Velocity, JIRA, Pivotal Tracker, Trello
- **Networking:** Twilio, firewalls, routers, switches, software switches (FreeSWITCH), VOIP configuration, Linux server support

CURRENT EXPERIENCE

TECHNICAL LEAD & SOFTWARE ENGINEER, PLATFORM ADMIN TEAM – AppDynamics

Feb 2015 - Present

Current Projects

- **Agile Process Facilitator:** Led the team, PMs and engineering management in facilitating 2 *Project Inceptions*.
- **Platform Admin Application** – Architected and led team in implementing an application for deploying and operating highly available distributed software applications on customers' on-premise datacenters. Used *inversion of control*, schemas, well-defined interfaces, and lifecycle hooks to keep the application agnostic of product-specific lifecycle management details.

PREVIOUS EXPERIENCE

SOFTWARE ENGINEER, CLOUD FOUNDRY TEAM & PIVOTAL LABS – Pivotal Software, Inc

May 2013 - Feb 2015

- **Agile Process Facilitator:** Facilitated 6 *Project Inceptions* and 2 *No-Blame Postmortems* across the Cloud Foundry org
- **Pivotal Operations Manager (network.pivotal.io/products/pivotal-cf)** – Pivotal's tool for managing lifecycles of distributed applications deployed on Pivotal Cloud Foundry. In addition to refactoring legacy code, built the CI/CD pipeline (GoCD) and implemented VM appliance delivery mechanism (via Packer).
- **Pivotal Web Services Console (run.pivotal.io)** – Pivotal's admin site for IT managers managing and scaling applications hosted on Pivotal Web Services (Pivotal's Cloud Foundry PaaS). Refactored major parts of legacy Rails implementation, making code more clear, concise and correct.
- **Pivotal Network (network.pivotal.io)** – Pivotal's site for distributing its software to enterprise IT managers. Technologies applied include Amazon S3, Cloudfront, thoughtbot's Bourbon/Neat, Redis/Resque, PostgreSQL, SCSS, Javascript, RSpec, Capybara, Jasmine, Sendgrid and Mailgun. Also contributed to parts of the UX design.
- **Cloud Foundry Buildpacks** including Go and Python buildpacks (similar to Heroku buildpacks) for the Cloud Foundry enterprise hosting platform. Linux server management (e.g. Iptables), Cloud Foundry CLI and BOSH Lite.
- **A consumer web and mobile application** for a Fortune 100 broadcasting company utilizing BackboneJS, Coffeescript, jQuery, AJAX, Redis/Resque, PostgreSQL, Elasticsearch, Rackspace.

Client Feedback

- "Chris is technically brilliant and brings a great spirit to the team."

PYTHON/DJANGO WEB APP DEVELOPER – Zannee.com, Des Moines, IA

Jun 2011 - Aug 2011

- Designed version 2.0 of the AgentCareCenter content management system for real estate brokers. Used CrazyEgg and Mixpanel to analyze customers' usage of the existing application; used this data to remove unnecessary features.
- Implemented the application in Django (using HTML, CSS, jQuery, Django templates, and a MongoDB backend) and deployed it using the dotCloud PaaS platform.

RESEARCH ASSISTANT – Columbia Center for Computational Learning Systems

Sep 2008 - Jan 2010

- Worked on the Automated Telephone Dialog System Optimization project.
- Implemented a log parser that enabled analysis of formerly-inaccessible system data.
- Increased system uptime to 95% (from 25%), via a custom VOIP telephony solution.

SQL DEVELOPER AND COLLECTIONS AGENT – Platinum Protection, Provo, UT

May 2008 - Aug 2008

- Automated away repetitive data entry in the Great Plains CRM using the AutoHotKey Windows GUI scripting language. The time saved by the script enabled collections agents to increase their outbound call volume by 10%. Promoted to a backend SQL developer role.
- Wrote SQL queries to find/correct errors in a Microsoft SQL Server DB that had previously been poorly maintained.

REGIONAL SERVICE COORDINATOR – Ukraine Donetsk Mission, Donetsk, Ukraine

Feb 2006 - Feb 2008

- Led 12-16 volunteers spread across multiple cities; conducted extensive training of both new and experienced missionaries; learned to speak, read and write fluently in Russian.
- Collected data on the volunteers' efforts/results, and taught/encouraged them to excel in their efforts and in their teaching of both the English language and self-improvement skills (e.g. self-reliance, addiction recovery).
- Increased team performance by 27% over a 7-month period through goal-focused training and tracking key indicators.

EARLY PROJECTS

Digital Goods Marketplace Simulation – Columbia Computer Science Department

Aug 2011 - Dec 2011

- Implemented a model digital goods marketplace. Optimized a dynamic pricing algorithm that increased steady-state revenues 5x.

Scalable, Low-Maintenance Implementation of Photographer's Portfolio Website

Mar 2013 - Apr 2013

- Implemented and maintained tylergathro.com using HTML/CSS/jQuery for the frontend and the Cactus static blog generator, Amazon S3 and Amazon Route 53 for hosting.

ENTREPRENEURSHIP

Founder & Business Developer, Pest Management Roundtable

Feb 2012 - Oct 2012

- Created a business around domain experts sharing their knowledge; grew the business via email and phone calls. Developed a scalable static marketing website (via Cactus) hosted on Amazon S3.

WRITINGS

- Features of Sustainable Online Marketplaces, January 2011
- Modeling a Finite Mechanical System using Lagrange's Method, May 2005

AWARDS

- C. Prescott Davis Scholar, Columbia Undergraduate Scholars, Aug 2008 - May 2013
- Summer Enhancement Fellow, Columbia Undergraduate Scholars, May 2009 - Aug 2011
- National Merit Scholar, Mar 2005

LANGUAGES

- English (native)
- Russian (fluent)
- German (conversational)