

**OBJECTIVE**

Software Engineer

**EDUCATION**

- BS, Computer Science; Concentration: Artificial Intelligence – Columbia University, New York, NY, 9/2008 – 5/2013.

**Relevant Coursework:** Cloud Computing, Programming & Problem Solving, Introduction to Databases, Computer Networks, Artificial Intelligence, Computational Aspects of Robotics, Data Science and Entrepreneurship, Data Structures and Algorithms, Machine Learning, Programming Languages and Translators.

**TECHNICAL PROFICIENCIES**

- **OS Platforms:** Ubuntu Linux 10.04 LTS/12.04 LTS, OS X 10.7/10.8
- **Cloud platforms:** Amazon AWS (EC2, S3, RDS, Route 53, Auto Scaling, CloudFront, CloudWatch, SES), DigitalOcean, PiCloud, dotCloud, Heroku, EngineYard
- **Web stack:** Nginx (server, proxy and frontend load balancer), gunicorn, uWSGI
- **Web frameworks:** Rails, Django, Jekyll, Flask, Cactus
- **Databases:** PostgreSQL, Redis, MongoDB, MySQL, Oracle 10g
- **Deployment:** Docker, Fabric, Cuisine, Salt, Boto, Rsync
- **Backend Languages:** working knowledge of Ruby, Python, Java, NumPy, SciPy
- **Frontend Languages:** working knowledge of HTML/Haml, CSS/Sass, Coffeescript, Javascript, jQuery
- **Test-driven Development:** Rspec, Cucumber, Jasmine, Nose
- **Productivity tools:** Vim, Git, Github, Sublime text editor, Notational Velocity
- **Networking:** firewalls, routers, switches, software switches (FreeSWITCH), VOIP configuration, desktop, Linux server support

**EMPLOYMENT****Software Engineer – Pivotal Labs**

May 2013 - Present

- Built and deployed a consumer web and mobile application for a well-known global medial client
- Mastered Pivotal Labs' take on the agile software development process, including test-driven development, pair programming, weekly sprints and regular retrospectives.

**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.

**Undergraduate 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.

**Collections Agent & SQL Developer – 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.

## 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 maintain [tylergathro.com](http://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

- MirrorUniverse Project Report, December 2011
- Features of Sustainable Online Marketplaces, January 28, 2011

## AWARDS

- C. Prescott Davis Scholar, Columbia Undergraduate Scholars, Aug 2008 - May 2013
- Summer Enhancement Fellow, Columbia Undergraduate Scholars, May - Aug (2009, 2010, 2011)
- National Merit Scholar, National Merit Scholarship Corporation, Mar 2005

## LANGUAGES

- Russian (fluent)
- German (conversational)
- Chinese (basic)