

# FRANK DAVID DUNCAN, JR

frank@kank.net  
(773) 727-3247

3822 W. Altgeld, Apt. #1  
Chicago, IL 60647

## Education

---

Illinois Institute of Technology

Chicago, IL: 8/2000 - 5/2004  
BS in Computer Science

## Relevant Skills

---

Languages with >10k lines of code  
>1k Lines of Code

Things to ask me about

Java, Common Lisp, JavaScript, PHP, Shell Script

Ruby, Python, C++, Scala, CoffeeScript

Vim, Linux (Gentoo/Ubuntu), Unix toolchain (grep, sed, etc.)

Maven, Agile, Subversion, Git, AccuRev, Rails, Tomcat, Spring

Web Technologies (CSS, HTML, HTTP, etc.)

## Work Experience

---

### **Katherine Anne Confections, Chicago, IL**

**Founder and CTO** (9/2006 - Present)

Designed and implemented <http://katherine-anne.com>. Created custom financial software tailor-made to the business process including various day-to-day operations of business such as printing forms, managing a customer database, automated shipping, automatic reconciliation with bank accounts, order management, and invoicing. Created the graphic and layout design while adhering to internet usability principles.

### **Vanderbilt University**

**Software Developer** (7/2016 - 7/2017)

Developed collabsnap: a prototype addition to SNAP! to allow for collaborative work. Details included:

- Writing simple in memory database and servlets to handle state
- Creating SNAP! blocks to connect to server
- Writing examples that showcased new features

Url: <https://github.com/frankduncan/collabsnap>

Skills Used: Java, Javascript, SNAP!

### **Center for Connected Learning at Northwestern University, Evanston, IL**

**Software Developer** (9/2013 - 11/2015)

Developing a NetLogo to JavaScript compiler, as well as maintaining legacy NetLogo implementation.

Work includes:

- Writing the compiler in Scala.
- Writing NetLogo models to gain a better understanding of the language.
- Creating extensive tests to check for correctness of compiler.
- Writing the NetLogo engine in CoffeeScript.
- Open sourcing software on github at [github.com/NetLogo](https://github.com/NetLogo) under the username frankduncan.

Skills Used: Scala, Coffeescript, JavaScript, Continuous Integration, Service Level Testing.

### **The Karn Group, Chicago, IL**

**Jack of all Trades** (5/2009 - 6/2013)

One of three developers delivering financial compliance services in an ASP model. Responsibilities include:

- Creating, and open sourcing, custom Common Lisp to HTML/JavaScript/CSS framework for quick development.
- Working directly with external clients to map out functionality.

- Specifying requirements for, installing, deploying, and maintaining hardware at a local datacenter.
- Designing application user interface in concert with client needs.
- Architecting data models into multiple backends including Mysql, Postgres, Tokyo Cabinet, and custom solutions.
- Developing entire applications from database schemas to HTML.
- Supporting and maintaining production applications.

Skills Used: All aspects of the project lifecycle, from initial design, through testing, deployment, and maintenance.

## **Orbitz WorldWide, Chicago, IL**

### **Senior Software Engineer: Internal Tools (3/2008 - 5/2009)**

Developed and administered tools for internal technical customers. Responsibilities included:

- Administered Atlassian Jira, Atlassian Confluence, AccuRev, RPM repository.
- Developed in-house tools for handling transitive dependency management and releasing software.
- Extended third party tools such as Jira, Confluence, and Ant for customized use by Orbitz employees.

Skills Used: Ruby, Rails, Python, Java, Maven, Common Lisp, and Ant.

### **Senior Software Engineer: Transaction Services (4/2005 - 3/2008)**

Developed software for Orbitz backend tier. Projects included:

- Provided Production Support for multiple high traffic sites.
- Architected and wrote the redesign for the switching layer for the air vertical.
- Built tool sets for developers to search site logs, drive controlled transactions, and manage the release process.
- Migrated the merchant processing module to a dynamic plugin architecture.
- Wrote a backend module for Orbitz For Business's hired-car module using SOAP as communication via AXIS.

Skills Used: Junit, Spring, Jboss, Tomcat, JDBC, Beanshell, and Ant.

## **Ribstone Systems, Chicago, IL**

### **Application Programmer (3/2004 - 4/2005)**

Created internal PHP applications for Managing Sales and Orders

### **Application Tester (6/2003 - 4/2005)**

Tested releases of Java-based company products.

### **Systems Programmer (12/2003 - 3/2004)**

Created scripts for automated custom Linux installations.

### **Customer Support and Training (3/2004 - 4/2005)**

Visited client sites to provide company product training.

## **Unisys, Roseville, MN**

**Co-op software tester (5/2002 - 8/2002)**

**Co-op software developer (6/2001 - 12/2001)**

## **Open Source Projects**

### **CLNL ( <http://github.com/frankduncan/clnl> )**

**Primary Developer (2/2016 - Present)**

CLNL is a toy implementation of NetLogo in Common Lisp.

### **Nekthuth: Connection with a Lisp ( <http://nekthuth.com> )**

**Primary Developer (7/2008 - 12/2009)**

Nekthuth is the combination of a vim plugin and a Common Lisp library which enables vim users to start up or connect to a CL interpreter inside vim, and do interesting things with it. It uses Vimscript, Python, and Common Lisp communicating over tcp to create a full development environment within a vim instance.