Kevin Lubick

Website: kevinlubick.com
GitHub: github.com/kjlubick

Work Experience

Software Engineer – Google   9/2015-Present

Work on the infrastructure for Skia, the graphics library used by Chrome and Android. Projects include setting up a network of Raspberry Pi and Android test bots.

Tools/Skills Go, Polymer, Javascript, HTML, CSS, Python, Raspberry Pi

Software Engineer Intern – Google   6/2015-8/2015

Created a visualization framework for a portion of Google's cloud services to aid in the managing and configuration of virtual machines.

Tools/Skills Python, Java, Google Cloud, AngularJS, D3.js, Test Driven Development

Graduate Research Assistant – NCSU   9/2013-5/2015

First research project was to design and test a social screencasting system, specifically the implications of intra-co-worker knowledge sharing.

Tools/Skills Java, JavaScript, AngularJS, HTML/CSS, EC2, MongoDB, SQL, git, bower

Undergraduate Research Assistant – Carthage College   6/2012-12/2012

Developed Storyteller, a granular version control system to aid in recreating the story of how code develops. Presented this work at SPLASHcon 2012.

Tools/Skills Java, JavaScript, AngularJS, HTML/CSS, SQL, Mercurial

Math/Computer Science Fellow – Carthage College   9/2011-5/2013

Tutored students in introductory math and computer science courses.

Java Intern – TDS Telecom   5/2011-9/2011

Was involved in many different aspects of creating a new customer interface that allowed customers to modify their telephone, data and satellite plans via the internet.

Tools/Skills Java, Groovy, Test Driven Development, SOAP

iPhone Application Developer – Innocorp LTD   6/2010-9/2010

Developed a proprietary app to test for the amount of impairment in a person's mental faculties based on the amount of alcohol consumed.
Tools/Skills XCode, Objective C, Test Driven Development

Education

M.S. (2013-2015): *North Carolina State University*, Raleigh, NC   4.00/4.00 GPA

Masters of Computer Science. Some of my favorite classes included Software Engineering, Spoken Dialog Systems, Intelligent Tutoring Systems and DevOps.

B.A. (2010-2013): *Carthage College*, Kenosha, WI   3.93/4.00 GPA

Majored in Computer Science with minors in Physics, Math and Spanish.

Technical Skills

Languages

Java, JavaScript, HTML/CSS,
LabView, Objective C, C++

Tools

Windows, Linux, Eclipse, git,
Mercurial, Amazon EC2, Google
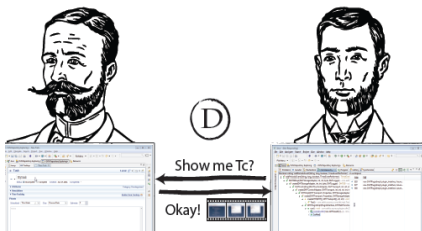Cloud, Travis CI, AngularJS, jQuery,
D3.js, Selenium, Apache Ant, Maven

Selected Projects

FindBugs and fb-contrib-quickfixes

FindBugs is an open source Java static analysis tool used to pre-emptively find questionable code and recommend solutions. I contribute new detection patterns, improved notification messages and quickfixes. I created an Eclipse plugin that automatically fixes many of these patterns and uses a full dev-ops build pipeline using Travis-CI. Any time code is committed, the plugin is automatically built, tested and deployed. http://goo.gl/bOsm6H

Tools/Skills Java, Test Driven Development, bytecode analysis, Travis-CI, Apache Ant

Social Screencasting

This project aims to automatically generate video screencasts from normal computer-based workflows. The thought is that if information workers have access to their coworker's screencasts, they will learn to use new tools, becoming more productive. The system recommends screencasts and tools, further improving productivity. http://goo.gl/2SGJJC

Tools/Skills Java, JavaScript, AngularJS, HTML/CSS, MongoDB, SQL, git, bower

Storyteller

Modern version control systems (VCS) keep coarse-grain snapshots as the history of a project. Looking at these snapshots, it can be hard infer design decisions or otherwise learn how expert developers work. Storyteller is a fine-grain VCS that makes video-like playbacks from data collected via an Eclipse Plugin. These playbacks can be annotated to preserve transient design decisions. http://goo.gl/Stvek9

Tools/Skills Java, JavaScript, AngularJS, HTML/CSS, SQL, Mercurial

Zero-g Fuel Gauge

Measuring how much fluid is in a tank while in space is hard, because the fluid sloshes around and there is no "up" or "down". When I was an undergrad, I worked as a part of the Carthage Microgravity team to solve this problem for NASA. One of the challenges I faced was designing a user interface that could be used to easily collect data in zero-g. http://goo.gl/RVfPBK

Tools/Skills LabView, electrical analysis, soldering, signal analysis techniques (FFT)

Publications

Do Developers Read Compiler Error Messages? Titus Barik, Justin Smith, <u>Kevin Lubick</u>, Elisabeth Holmes, Jing Feng, Emerson Murphy-Hill, Chris Parnin, ICSE 2017

Fuse: A Reproducible, Extendable, Internet-scale Corpus of Spreadsheets Titus Barik, <u>Kevin Lubick</u>, Justin Smith, John Slankas, Emerson Murphy-Hill, MSR 2015

Can Social Screencasting Help Developers Learn New Tools? <u>Kevin Lubick</u>, Titus Barik, Emerson Murphy-Hill, CHASE 2015

Commit Bubbles Titus Barik, <u>Kevin Lubick</u>, Emerson Murphy-Hill, ICSE, New Ideas and Emerging Results Track, 2015

How Developers Visualize Compiler Messages: A Foundational Approach to Notification Construction Titus Barik, <u>Kevin Lubick</u>, Samuel Christie, Emerson Murphy-Hill. 2nd IEEE Working Conference on Software Visualization, 2014

Reduced Gravity De-gassing of Perfluorohexane Coolant Using a Radial Membrane Contactor (Poster) Danielle Weiland, Eli Favela, Amelia Gear, <u>Kevin Lubick</u>, Steven Mathe, John Robinson, Seth Schofield, Kevin Crosby, Nancy Hall, ASGSR, 2013

Modal Evaluation of Fluid Volume in Spacecraft Propellant Tanks Steven Mathe, KelliAnn Anderson, Amber Bakkum, <u>Kevin Lubick</u>, John Robinson, Danielle Weiland, Rudy Werlink, Kevin M. Crosby, Proceedings of the Wisconsin Space Grant, 2012