

Nathan T Schlehlein

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I like to solve problems and build new things - sometimes with software and sometimes with hardware - but always by working with other people.

Relevant Work Experience

Iowa Student Loan

West Des Moines, IA
March 2018 - Present

Tech Lead / Senior Developer

Currently leading a small team that develops new software to support student loan origination using Spring Boot, Groovy, JavaScript, and TDD practices.

- Rapidly releasing new software by migrating functionality from bulky legacy systems into new microservices
- Migrated loan configuration information out of a large legacy system into a new web service where it is easily accessed by all applications across the company
- Leading "Try Stuff Tuesday", a weekly mob programming group that has experimented with Kotlin, React, and Groovy Spock / Geb testing. Currently investigating the Cypress testing toolkit
- Facilitating team retrospectives and participating in architectural discussions
- Performing interviews and paired programming exercises with new candidates

Pillar Technology

Des Moines, IA
May 2013 - February 2018

Software Craftsman

Provided agile coaching and project velocity to customers in the agricultural equipment / data, insurance, and real estate markets.

Coaching

- Facilitated the 2014-2017 Des Moines Global Day of Code Retreat
- Performed interviews and paired programming exercises for new Pillar recruits
- Presented on topics including TDD, agile boot camps, event-based architecture, software defined radio, and microcontrollers at internal conferences and recruitment events
- Facilitated team retrospectives
- Acted as an "Artisan At Large," assisting fellow Pillar employees in identifying and

- executing on career goals
- Assisted in building a new team for a start-up customer

Velocity

- Implemented a PDF report generation solution for an agricultural company utilizing a headless web browser controlled by Python and NodeJS using AWS Lambda, S3, and DynamoDB
- Improved performance of a data processing and map rendering pipeline for an agricultural company, written in Python, C++, and C#, utilizing AWS infrastructure
- Provided development work on an embedded vehicle control and in-cab display system for an agricultural equipment manufacturing company in C++ / Qt, Python, Javascript and bash shell
- Created a desktop Java application that enabled third party mobile developers working with an agricultural manufacturing company to efficiently test their apps against a web service. I also provided example code in Ruby, Objective-C, and Swift
- Developed a web application for an insurance start-up, written in C# and Angular, utilizing Salesforce.com APIs for persistence, hosted on AWS
- Created a web application for a real estate start-up, written in C#, hosted on Azure

Corvisa Services

Milwaukee, WI
May 2011 - May 2013

Senior Developer

CorvisaCloud

- Developed an event-based call router and user presence server to handle and route incoming call events to agents based on skill and availability, implemented with Perl, bash, RabbitMQ, Redis, PostgreSQL, Javascript, HTML, WebRTC, and XMPP

PDFDiff

- Created on-demand Windows service using C++, Adobe Acrobat SDK, Perl, Cygwin, and RabbitMQ to generate a visual diff of two PDF documents, saving StreetLinks appraisal review associates 5 to 7 minutes per review

Gander

- Implemented a digital display product used internally by Corvisa's sister companies, written using Perl, PostgreSQL, RabbitMQ, jQuery, Backbone.js, and X11
- Created WYSIWYG editor for content generation
- Wrote serial drivers for displays and HDMI matrix devices to control power, volume and input options

PhoneStalker

- Developed an internal tool used by associates to view agent and queue status from a ShoreTel phone server, implemented using Perl, jQuery, C++, Qt, QML, RabbitMQ, and PostgreSQL
- Developed web-based viewer utilizing Websockets for real-time updates for agent

- use and display on wallboards within call centers
- Created Windows desktop application for end user use in C++ using Qt / QML

LenderX

- Continued development on legacy product written in Perl, PostgreSQL, RabbitMQ, Javascript, Ext

Telkonet

Milwaukee, WI
April 2007 - May 2011

Lead Developer

Networked Telkonet SmartEnergy

- Led development team in networking an existing Telkonet thermostat product and creating a web-based control and reporting platform, currently used in over 10,000 hotel guest rooms, dormitories, and barracks
- Interfaced with existing hotel management systems via network and serial connections for occupancy data and service payment processing
- Technologies Used: PHP, C++, Qt, Python, C / Assembly (Texas Instruments MSP430), Javascript, ExtJS, jQuery, MySQL, RRD, ZigBee

Telkonet Ethostream HSIA

- Supported legacy Telkonet HSIA solution for hospitality
- Maintained and created new features for 3,000+ EthoStream Gateway Servers, an x86 based embedded Linux system
- Technologies Used: PHP, Perl, Javascript, ExtJS, MySQL

Powerweb Technologies

Media, PA
January 2006 - May 2007

Director of Development

Powerweb Wireless Energy Management

- Developed and maintained platform including COTS energy meters, cellular data modems, lighting controllers, and a management web application
- Worked with state and industry leaders in an attempt to create a state-wide automated load management initiative
- Introduced Agile / TDD processes to team
- Technologies Used: PHP, C++, Assembly (PIC), MySQL, RS-232, 433MHz radio

SourceXtreme

Exton, PA

May 2005 - December 2005

Software Developer

- Developed new and upgraded legacy applications using C++ and Qt
- Created in-house test suite for Qt / C++ applications
- Provided Agile / XP / TDD consulting services

Presentations And Workshops

Build Your Own Microcontroller Multi-Tool - Presented at KernelCon 2019

Build Your Own Arduino Workshop - Co-presented at CodeMash 2018, Prairie.Code 2017, Indy.Code 2018, Nebraska.Code 2018

VIVA LOS FLYOVER STATES - Presented at CodeMash 2018

Education

Milwaukee School of Engineering, B.S., Computer Engineering, 2004