



skills //

JavaScript ES6	PostgreSQL	OpenResty / NGINX	Material Design	NATS	Agile
Lua	MySQL	HTML5/CSS3	Browser Plugins	GIT / SCM	Docker
PHP	MongoDB	Vue.js	UI/UX	DBA	Sysadmin
Python	Redis	Airflow	Compass/SASS	AWS / Azure	GitLab
Node.js	Koa	Kubernetes	DevOps	Asterisk	Sense of humor



experience //

SENIOR ENGINEER / FULL-STACK DEVELOPER

JARVUS INNOVATIONS / SLATE FOUNDATION / MATCHBOOK LEARNING // 2015 - PRESENT

Implemented a Node.JS module that streams real-time database changes from MySQL, PostgreSQL, MongoDB and Redis:

- Leveraged built-in replication protocols and binary logs for low-latency and minimal overhead to the database
- Configuration-driven plugins allowed the event stream to be published to NATS, Kafka and websockets without code
- Allows real-time end-user features and event streaming to scale independently of the underlying database

Moved sessions and authentication to the edge using OpenResty/NGINX and Redis:

- Allowed stateless microservices to trust incoming connections and retrieve session information via HTTP headers
- Reduced threat surface by protecting underlying infrastructure from rogue requests and reducing boilerplate security code.

Engineer methods to transition running production systems from relational monoliths to event-sourced microservices:

- Used temporal tables to capture changes and eliminate data loss during conversion to an append-only data schema.
- Generated unique request/correlation IDs in NGINX to provide end-to-end logging throughout the request lifecycle

SOFTWARE DEVELOPER

COREDIAL // 2013 - 2015

Designed and developed "click-to-dial" plugins for Chrome, Firefox and Safari:

- Implemented non-destructive phone number tagging in dynamically loaded content and nested iframes.
- Created Grunt tasks to automate build, packaging and development workflows for each browser
- Reverse engineered a method to sign Safari packages on Linux to meet our CI/CD requirements

Worked on a team of 10 developers to convert a 350 screen legacy PHP app in 6 months:

- Developed a real-time call center dashboard using XMPP, Knockout.js and jQuery.
- Created reusable UI widgets and JavaScript components to rapidly implement new features globally.

FREELANCE CONSULTANT

JARVUS INNOVATIONS // 2014 - PRESENT // CONTRACT

- Automated export of student grades from a legacy ASP.NET application using PhantomJS and Node.js.
- Integrated with Google Apps for SSO and syncing of local users and groups using OAuth2.
- Migrated legacy FoxPro databases to PostgreSQL and checked for accuracy.

DIRECTOR OF DATA & ACCOUNTABILITY

STRING THEORY SCHOOLS // 2012 - 2013

- Saved \$300,000 in first year infrastructure costs by engineering an open source networking stack.
- Engineered a web content filter for 1:1 iPad deployment at 1/10th the cost of comparable solutions.
- Automated Google Apps administration using Python, Selenium and Node.js where Google's API fell short.

SOFTWARE DEVELOPER

HOUSEFIX // 2011 - 2012 // CONTRACT

- Compiled a nationwide database of home improvement contractors with 99% accuracy.
- Designed an onboarding UI/UX that generated "point-in-time" help omitting steps that the user had already taken.



volunteer //

TEAM LEADER / HEAD DEVELOPER

PHILLY TECH CAMP // 2013

School closures meant students were walking farther to school through unfamiliar areas. I created SafestWay: a mobile app that routes around incidents of crimes to provide safe walking routes.



education //

COLLEGE

WEST CHESTER UNIVERSITY // 2012

Major: Business Administration
Minor: Business Geography (GIS)