Karl Hill

SENIOR SOFTWARE ENGINEER

Summary

Senior technology leader with over 20 years of experience spearheading, developing, and deploying Agile solutions. Exhibits proficiency in client engagement, comprehending requirements, and delivering solutions. Proficient in full-stack engineering, working across diverse industries. Known for strategic planning, team leadership, and a commitment to staying abreast of the latest trends and technologies.

Professional Experience

Sr. Software Engineer, Science Systems and Applications, Inc (SSAI), Lanham, MD

DECEMBER 2017 — PRESENT

- Architected NASA's AWS-hosted Flood Mapping System for real-time satellite-based flood analysis.
- Engineered a Ceph-backed file and metadata management app with virtual directory mapping.
- Redeveloped earthobservatory.nasa.gov, a high-traffic website with ~1.5 million monthly visits, and admin system, optimizing performance, usability, and SEO.
- Architected a comprehensive automated content registry system, managing digital content types and improving data collection for NASA by 60%.
- Streamlined development by implementing CI/CD pipelines using GitLab, Docker, and Kubernetes, enabling faster and scalable software delivery.
- Led Agile teams to deliver high-quality software aligned with NASA's evolving mission objectives.

Sr. Software Engineer, InformedDNA, St. Petersburg, FL

JANUARY 2016 — DECEMBER 2017

- Architected a Laravel-based case management application for healthcare professionals, including UI/UX design, saving $30K in extra expenses.
- Engineered advanced CRM enhancements using innovative technologies, improving customer service and contributing 15% to revenue growth.
- Introduced custom APIs, eliminating 3 DB instances and optimizing DB usage.
- Managed system upgrades and maintenance, bolstering security and system availability, resulting in a twofold decrease in security incidents.

Sr. Software Engineer, Ticomix, Inc., Washington, D.C.

JUNE 2012 — MARCH 2015

- Crafted SugarCRM applications for 20+ clients (VDOT, Redskins, Kastle), leading to an increase in efficiency and productivity across sales departments.
- Reduced defect backlog from hundreds to 25 at product launch, enhancing product quality and customer satisfaction for a premier client.
- Created an application to assist companies in identifying business opportunities.
- Collaborated in a 10-person distributed team, demonstrating strong remote collaboration capabilities, essential for driving product development.

Details

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Links

https://www.linkedin.com/in/khill/

https://karlhill.com

https://github.com/karlhillx

Skills

Agile Methodologies

Team Leadership

SDLC Processes & Execution

Object-Oriented Design

Test-Driven Development

Technical Troubleshooting

Cloud-Native Solutions

UX / UI Development

Stakeholder Engagement

Cross-Functional Collaboration

Software Engineer, Sabre Corporation, Bethesda, MD

JULY 2010 — JUNE 2012

- Built and optimized PHP applications for 5 top global travel clients, improving customer satisfaction and overall user experience.
- Translated client needs into detailed technical specifications, guiding the development of customized solutions aligned with client objectives.
- Mentored junior developers, fostering an environment of continuous growth and skill enhancement.

Principal Software Engineer, Dante Inc., Arlington, VA

MAY 2007 — JUNE 2010

- Engineered Java solutions leveraging open-source technologies for industry leaders like Comcast and Mastercard, streamlining operations and maximizing efficiency by 40%.
- Played a pivotal role in a Scrum team, driving the development and delivery of critical features, conducting thorough tests, and achieving optimal performance.
- Routinely executed comprehensive unit and acceptance testing utilizing Selenium to ensure near-flawless software performance and reliability.

Sr. Software Engineer, Visitar, Inc., Reston, VA

JANUARY 2006 — FEBRUARY 2007

- Collaborated on a Java-based telephony application with Asterisk integration, enhancing SugarCRM with features such as ACD, call routing, web-based IVR, and voicemail, resulting in an improved customer service experience.
- Built a CRM telephony component using Flash/ActionScript, optimizing call management and handling over 1000 daily customer interactions.
- Rapidly identified and resolved technical issues, maintaining smooth operations and achieving a 99% reduction in system downtime.

Software Developer, Verizon Business, Herndon, VA

NOVEMBER 1999 — MARCH 2005

- Instrumental in building NetSec's managed security-services platform, Finium, leading to a tenfold increase in client engagements, a prestigious presentation at Gartner, and MCI/Verizon's posthumous acquisition of NetSec for $105m.
- Boosted client on-boarding efficiency by 75% by developing Finium's internal administration systems using PHP and Java.
- Key contributor to a 7+ person Java agile team, transitioning from initial XP and waterfall methodologies to Scrum, leading to increased quality.

Education

Bachelor of Science, Computer Science coursework, Univ. of Maryland

Associate of Arts, General Studies, Howard Community College

Certifications

Professional Scrum Master I (PSM I), Scrum.org

Certified ScrumMaster (CSM), Scrum Alliance

Project Management, Rutgers University

Technical Skills

Languages: JavaScript, Python, PHP, Java, Perl, Bash

Frameworks & Libraries: Laravel, Node.js, React, Tailwind, jQuery, REST APIs

Databases: MySQL, PostgreSQL, SQL Server, Oracle, Elasticsearch, JSON

DevOps & Cloud: AWS (EC2, S3, etc.), Docker, Kubernetes, GitLab CI/CD

Tools & Technologies: Git, NPM, Composer, Vite, Nginx, Jira, Figma, JetBrains