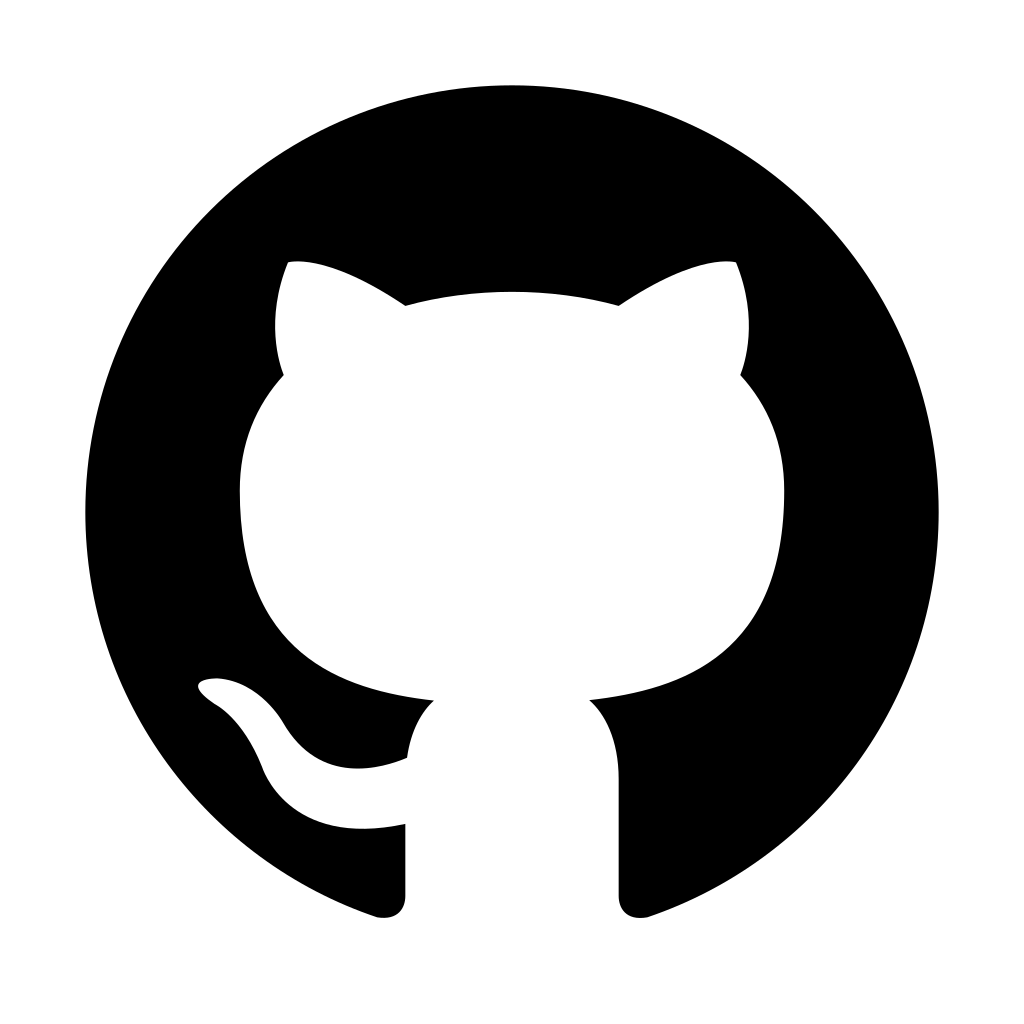
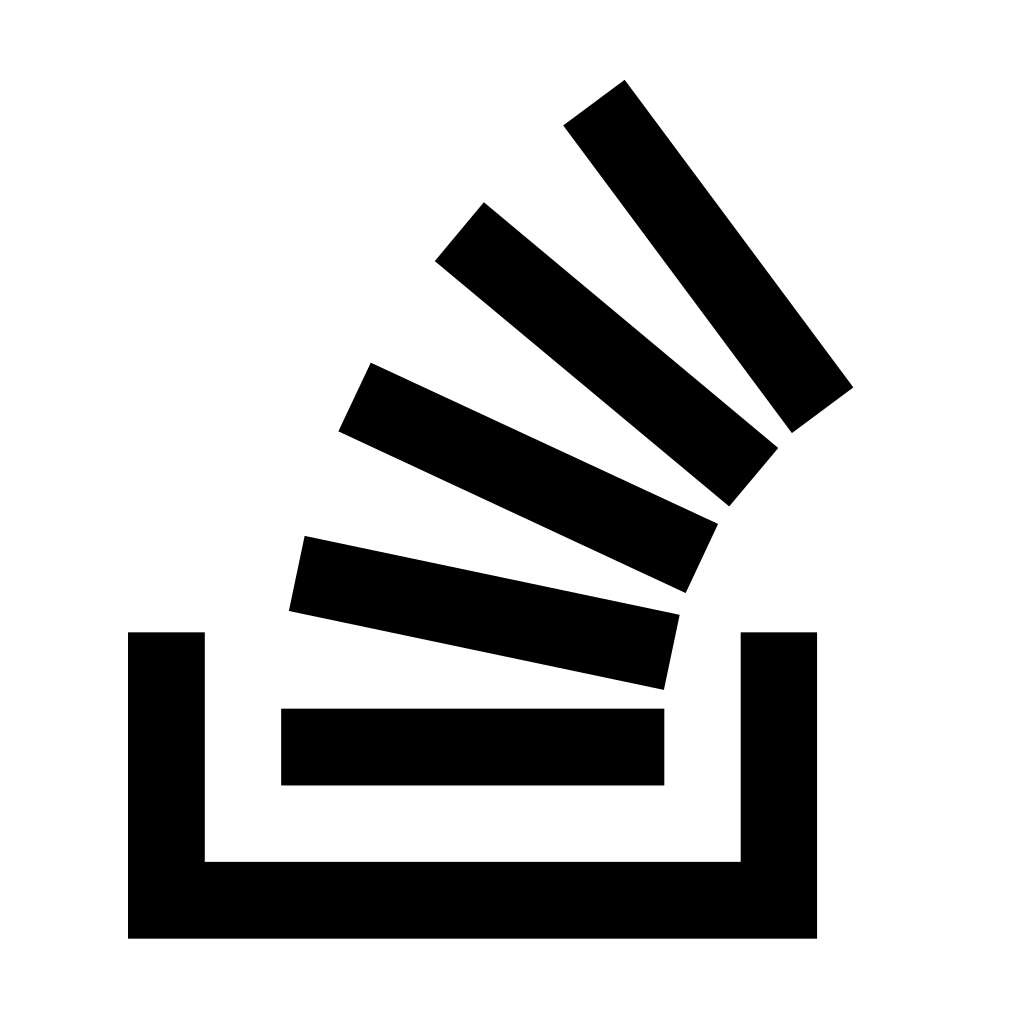
mail Vector Icons free download in SVG, PNG Format**Jerren Saunders**

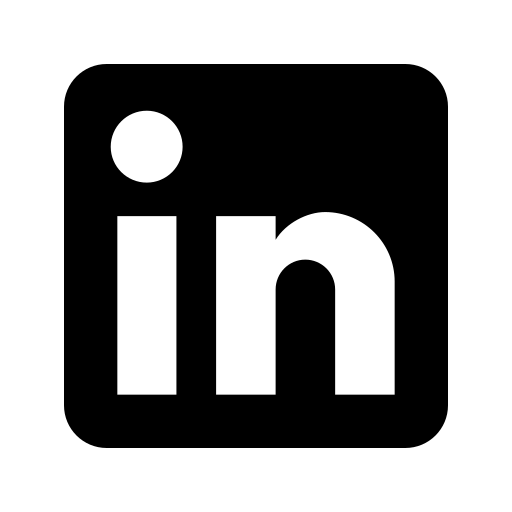
A black and white logo**// Systems Software Developer**

// Apex, NC

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**/\* Summary \*/**

With over 15 years of experience in software development, I have a passion for analyzing customers' processes, identifying areas of improvement, and then breaking through paradigms to create a streamlined solution. I have expertise in MEAN (MongoDB, Express.js, Angular, Node.js) stack development, several scripting languages, and process automation. I enjoy collaborating with cross-site and cross-functional teams to synchronize efforts and benefit the company.

At BlackBerry QNX, I created a web application to centralize storage, management, and analysis for test results using the MEAN stack. I also managed the infrastructure of the software test lab, including servers, tools, and automated test frameworks. I initiated and facilitated monthly cross-site meetings for lab stakeholders, and I was the go-to contact for troubleshooting and resolving problems. I mentored, onboarded, and trained new hires of all experience levels, and I oversaw and inspected the local site to ensure compliance with annual external audits.

**/\* Experience \*/**

// **BlackBerry/QNX/Research In Motion**, Cary, NCFebruary 2010 – March 2024

**Senior Systems Software Developer | Full Stack**

* Led the conception, design, development, deployment, and maintenance of the test result management web application ([BlackFish\*)](#BlackFish).
  + Reduced management and triaging of over 1 million weekly test results from 2 days to less than 2 hours.
  + Utilized MongoDB, Node.js, Express.js, and Angular (MEAN) stack.
* Designed and prototyped the [BlackBook\* web application](#BlackBook) (using MEAN stack) to streamline the management and sharing of hundreds of development boards.
  + Included features to efficiently allocate resources, balance manual and automated testing, and maximize development board utilization.
* Designed, assembled, and maintained lab infrastructure for automated testing.
  + Designated to take on the position of Site Lab Manager, starting May 2024.
  + Played a pivotal role in preparing for annual external security audits.
* Developed JavaScript, Python, and Shell scripts to automate tasks for teams throughout the business unit.
* Launched monthly cross-site meetings for lab stakeholders to promote knowledge‑sharing and teamwork.
* Mentored senior design teams in NC State's Computer Science department.
* Trained new employees including co-ops, new grads, and senior level.
* Selected to remain in an elite team during a site-wide layoff (2014).

**Software Configuration Management (SCM) Specialist**

* Managed Perforce project branches and conducted smoke-tests.
* Identified optimizations for config specs to reduce workspace size by 75%.
* Created [server/client C# .NET applications](#DTS) to enable rapid development of plugins to provide features needed for testing and automating tasks.

// **Ericsson Mobile Platforms**, Morrisville, NCSeptember 2005 – November 2009

**Software Engineer II**

* Designed and developed multiple internal applications and scripts, automating testing and routine tasks to improve operating efficiency.
  + Automated a frequent 12 hour process into a 2–4 hour procedure.
* Managed dozens of servers dedicated to building code and executing tests.

**Software Configuration Management (SCM) Specialist**

* Managed the delivery of new features and bug fixes, ensuring seamless integration from development to customer release.

**Other Accomplishments**

* Titled “Site Tools Champion” due to troubleshooting and serving as key point of contact for tools support to minimize issues and reduce down time.

**/\* Skills \*/**

**// Programming Languages**

JavaScript ●●●●●

TypeScript ●●●●●

Java ●●●●●

C# ●●●●●

Python/MicroPython ●●●●●

Perl ●●●●●

Batch ●●●●●

Bash ●●●●●

C/C++ ●●●●●

**// Database Technologies**

MongoDB ●●●●●

SQL ●●●●●

**// Web Development**

Node.js ●●●●●

Express.js ●●●●●

RESTful APIs ●●●●●

Angular (v8-v15) ●●●●●

**// Version Control**

Git ●●●●●

Perforce ●●●●●

**// Cloud**

Mongo Atlas ●●●●●

AWS ●●●●●

**// Miscellaneous**

VS Code, HTML, CSS, XML, NGINX, regex, JIRA, SNMP, Windows, Linux, HyperV, MS Office, WSL

**/\* Education \*/**

**Computer Engineering, BS**

NC State University

**Electrical Engineering, BS**

NC State University

**/\* Key Projects \*/**

// **BlackFish – Test Result Management Web Application** 2017 – 2024

*BlackBerry/QNX/Research In Motion*

* Led the conception, design, development, deployment, and maintenance phases of this internal tool to manage test results from diverse frameworks and teams across the organization.
  + Empowered stakeholders to store and analyze over 48.5 million tests during 2023.
  + Streamlined management and triaging of over 1 million weekly test results from 2 days to less than 2 hours.
* Managed all aspects of the infrastructure including:

MongoDB Replica Set Configuration Production, Stage, and Test Servers (OS & Hardware)

Node.js Service hosting JavaScript REST API NGINX Service hosting front end

GitLab Projects & Branches ES Lint (static code analysis)

Agile Software Development Lifecycle using JIRA

* Implemented features to monitor performance metrics for identifying issues, bottlenecks, and areas needing optimization, focusing efforts on increasing system efficiency, responsiveness, and scalability.
* Collaborated with 8 teams across the organization to comprehend their distinct testing methodologies.
  + Designed an adaptable schema to accommodate various test frameworks and ensure future scalability.
  + Developed parsing scripts in JavaScript and Python tailored to each team’s specific procedures.
* Developed an extensive suite of unit, integration, API, and E2E test cases for the backend system using the Mocha + Chai frameworks, ensuring thorough coverage and resilience of the delivered RESTful interface.

// **BlackBook – Hardware Reservation System Web Application** 2023 - 2024

*BlackBerry/QNX/Research In Motion*

* Designed and prototyped a web application to manage the sharing and utilization of hundreds of development boards among the test team and software developers.
  + Optimized resource allocation and enabled a balance of manual and automated testing.
  + Compiled feature requirements based on feedback and lessons learned from legacy methods.
  + Designed using MongoDB, Node.js, Express.js, and Angular (MEAN) stack.
* Collaborated with a team of seniors at NC State University to develop and implement an early prototype.

// **ResumeTracker – Mongo Atlas** March 23, 2024 - Current

*Self*

* Designed and created a Mongo Atlas App Service which is the target for https://jerren.info/<Company> short links provided in my resume to tally visits and then redirect viewers to a custom landing page.
* Developed to expand my experience with Mongo Atlas, build sample code for my online portfolio, and also gauge interest in my resume.
* Source code and documentation may be viewed at <https://github.com/jerrens/ResumeTracker>.

// **Interactive Game System** Current

*Side Venture*

* Designing and developing a Node.js service to monitor a control board via serial port, decoding proprietary binary messages, storing into a MongoDB, and providing real-time notifications to web clients.
* Leading the design and optimization efforts of the MongoDB database, including defining collections, document schema, and indexing strategies to store captured data, user information, and other system components.
* Assuming sole responsibility for the development and rigorous testing of RESTful interface.
* Providing consultation in the development of both the control board firmware and the Angular front-end dashboard.

// **Remote Bug and Log Reporting Tool** 2016 – 2017

*BlackBerry/QNX/Research In Motion*

* Contributed as a member of a team tasked with uploading logs and core dumps files from devices undergoing development and field testing.
* Proposed and implemented a system architecture, leveraging AWS services including S3, Lambda, SQS, and SNS.
* Configured AWS services to index uploaded items, queued them for processing, and sent notifications upon availability for analysis.
* Developed a C# application that connected to AWS services to retrieve object summaries, facilitating the review, management, and triaging of reported issues.
* Implemented a caching mechanism to store retrieved objects locally on the intranet, enhancing performance and minimizing costs associated with AWS data transfer and requests.

**/\* Key Projects (Continued) \*/**

// **Data Terminal Server** 2010 – 2015

*BlackBerry/QNX/Research In Motion*

* Designed and implemented a generic C# .NET console application as a reusable component for rapidly creating server-client processes, allowing new functionality to be quickly created as plugins to the framework.
* Developed a suite of plugins to manage test requests, perform remote builds, and execute automated tasks.

// **Surge – Current Measurement Scope Application** 2007 – 2009

*Ericsson Mobile Platforms*

* Coauthored a C# application to control, capture, and plot ADC measurements from 16 channels in real-time.
* Authored bootloaders in C for two Atmel processors, enabling firmware updates by end-users.
* Developed scripts to automate the flashing and verification testing of firmware and hardware calibration in the factory, resulting in significant cost savings.

**/\* Awards \*/**

// **Extra Mile Award**

* For assisting other employees and groups beyond the scope of normal job responsibility
* Three-time recipient
* Nominated by peers

// **Management Award**

* Recognition for extra work to establish a collaboration tool for the local site

// **STAR Award**

* Recognition for dependability
* Three-time recipient
  + Silver & Gold levels
* Nominated by peers and Senior Director of Test and Development