# Gavin Stark

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### Skills

Ruby <sub>16 years</sub>. Ruby on Rails <sub>16</sub>. Linux <sub>15</sub>. C <sub>34</sub>. C++ <sub>29</sub>. JavaScript <sub>16</sub>. TypeScript <sub>3</sub>. Java <sub>16</sub>. C# <sub>3</sub>. HTML <sub>16</sub>. CSS <sub>16</sub>. TDD <sub>14</sub>. Docker <sub>5</sub>. React <sub>4</sub>. Heroku <sub>6</sub>. Nginx <sub>11</sub>. VMWare <sub>9</sub>. MySQL <sub>15</sub>. PostgreSQL <sub>6</sub>. Windows <sub>8</sub>.

#### Experience

Ruby. Ruby On

Rails. React. TypeScript.

lavaScript.

HTML. CSS. Deployment.

PostgreSQL.

C#.

### Senior Instructor / Suncoast Developers Guild

August 2018 - Present / Saint Petersburg, Florida

- Taught Ruby, TypeScript, React, HTML, CSS, Algorithmic Thinking, and C# to more than 150 students in an accelerated three-month program.
- Developed curriculum for Ruby, C#, Entity Framework, ASP.NET, HTML, CSS, Responsive Web, JavaScript, TypeScript, React, Deployment, and Algorithmic Thinking. See https://handbook.suncoast.io.
- Contributed to internal app generator: app-app. Based on react-scripts, builds student starter projects.
- Built student management system: Nexus + Pylon, a Rails/React/TypeScript system to manage enrollment, homework assignment, grading, and student progress reports.
- Helped place students as junior developers.

# Senior Developer / STRATACACHE (Real Digital Media)

August 2017 - Present / Saint Petersburg, Florida

- Re-implemented, as primary developer, the NEOCAST digital signage management software. Built as a JSON-API back-end in Ruby on Rails and a front-end in over 30,000 lines of TypeScript and React using Bootstrap.
- Built, deployed, and supported a Ruby on Rails project for over 15 years. From Rails version 0.9 through Rails version 6.1
- Built custom Ubuntu-based OS to run on ARM-64 based embedded systems.
- Developed and implemented custom kernel patches for ARM-64 systems.
- Built automation software for deploying and scaling AWS resources to host a Docker-based application.
- Implemented consolidated application log collection and analysis.
- NOTE: STRATACACHE purchased real Digital Media.

Ruby. Ruby On Rails. TypeScript. JavaScript. React. MySQL. Linux. HTML. CSS.

**Instructor** / The Iron Yard

Ruby. Ruby On Rails. Heroku. HTML. CSS. React. PostgreSQL.

- Taught Ruby, Ruby on Rails, HTML, CSS, JavaScript, React, Node, Express, Algorithmic Thinking, and Deployment to more than 80 students in an accelerated three-month program.
- Built internal learning management software as part of an internal product development team.

### VP Product Development & Engineering / Real Digital Media

January 2005 - July 2015 / Saint Petersburg, Florida

- Managed a team developing Ruby on Rails applications to provide a remote management web application to operate our customer's digital signage networks.
- Built infrastructure that processes over *five million requests* and *one million background jobs* per day.
- Migrated infrastructure from one server in a closet, through a data center transition, to a scalable Amazon Web Services based architecture.
- Built AWS infrastructure and software deployment strategy, including multi-zone redundancy.
- Built online report generator producing CSV, XML, JSON, and PDF reports.
- Designed and built an interactive editor for creating digital signage presentations containing multi-zone and multi-screen configurations.
- Responsible for database design, including query and index optimization.
- Created monitoring dashboards and alerts using Scout.
- Built disaster recovery policies and code, including offsite content and database backups.
- Developed Linux and Android software and custom Linux distributions to run on embedded and PC platforms.
- Built software in C, C++, and Java to download, manage, and play customer media on Linux-based devices.
- Patched Linux hardware drivers for device incompatibilities and missing features.
- Created a custom Ubuntu-based operating system designed to boot from a single squashfs root filesystem combined with an overlay filesystem allowing for secure and reliable remote upgrades of thousands of remote devices.
- Oversaw the migration from custom system-on-chip to off-the-shelf hardware, including migrations from 32 to 64 bit operating systems and software.

# **Senior Engineer** / Honeywell Space Systems

March 2002 - January 2005 / Clearwater, Florida

- Served as a senior software architect on the Ballistic Missile Range Safety Technology program.
- Led team building, testing, and certifying Flight Category 2 (one level below the safety category for human space flight) software in C++ to track launch vehicles, download telemetry, convert real-time telemetry data into actionable information, and plot the Instantaneous Impact Point of launch vehicles.

Ruby. Ruby On Rails. HTML. CSS. TypeScript. JavaScript. React. MySQL. Linux.

C. C++. Windows.

- Created software to provide a 3D view of a launched rocket's projected impact point, allowing a safety office to decide to destroy the vehicle if it encroached on populated areas.
- See: https://en.wikipedia.org/wiki/BMRST

### Senior Software Engineer / Teltronics

Feb 2000 - March 2002 / Sarasota, Florida

C. C++. Windows.

- Senior software engineer building C++ and Windows-based software for managing networks of PBX phone systems.
- Contributed to embedded systems software in C and C++
- Created and executed unit, system, and acceptance tests.

### Owner / Epsilon Squared Software

January 1999 - Feb 2000 / St Petersburg, Florida

C. C++. Windows.

 Built, marketed, and sold products (InstallWatch and InstallRite) for documenting and automating the remote deployment of software on Microsoft Windows networks.

#### Senior Consultant / CFT Consulting

July 1995 - January 1999 / Sarasota, Florida

C. C++. Windows.

- Designed and built software systems for nationwide system deployments and migrations of POS terminals, inventory management systems, warehouse management systems, and accounting systems for GAP, Egghead, Totes, and Adidas.
- Managed the RFP process for large POS and Merchandising system selections.

#### Community

BarCamp Tampa Bay - 2007 to 2017 - Founding member of BarCamp Tampa Bay

**Ignite Tampa Bay** - 2011 to 2017 - Founding member of Ignite Tampa Bay

**Coder Night** - 2017 to 2021 - Organized a meetup designed to help developers of all skill levels practice and receive feedback in a supportive and collaborative environment.

**Tampa Ruby Brigade** - 2006 to Present - Organized the Tampa Ruby Brigade meetup.

#### Education

#### **University of Arizona**

Masters in Management Information Systems

### **University of Rochester**

Bachelor of Arts in Computer Science / Applied Mathematics

## Open Source

**ruby** - Rubygems - added the initial implementation of "did you mean" for misspelled gems during install

**rake** - Updated output to print the list of tasks in full width if not printing to standard output. Allows for piping to other commands such as grep

rvm - Disabled color output when the terminal is not standard out

jruby - Implemented language features and fixed issues in JDBC drivers

honeybadger - Fixed data context issues

libva - Patched memory leaks

gstreamer - Resolved memory leaks in video and audio codecs