Caleb Marchent

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## Profile

Software Engineer with 20 years experience, predominantly as a hands-on developer leading teams of highly skilled engineers to deliver products using whatever technology is required. Holds a rare combination of talents; a broad knowledge of the development, production and support of software, the ability to write code, script systems and use tools while at the same time - create, mentor and manage teams that can do this on a larger scale. Grace under pressure while dealing with demanding customers from around the world and delivering on tight deadlines.

## Key Skills

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| **Agile:** Certified Scrum Master  **Bug Tracking:** JIRA, Bugzilla  **Continuous Integration:** Jenkins, CircleCI, TravisCI  **Build:** CMake, Buildroot, GNU Make, Autotools  **Version Control:** Git, SVN, CVS, Perforce | **Script Development:** Bash, Perl, Python  **Programming:** C, C++, SQL  **Linux Development** for both consumer device and servers  **Debian** Administration and Package Development | **Line Management** approach tailored to individual  **Recruiting,** Building Teams  **Mentoring,** Goal Setting & Performance Tracking  **Software Change** & Configuration Management  **Collaborative**, clear vision |

## Experience

**Audio Analytic** **2019 - to date**

Established new Platforms team, to build-out the infrastructure and tooling to support the machine learning of sounds.

**Contract via Aquent at Facebook** **2018 - 2019**

Contract to deliver LogDevice Open Source, making a key component of Facebook's data-infrastructure available for use and contribution by the open source community

Port LogDevice to CMake build environment; allowing development outside Facebook infrastructure.

Configured Travis and then CircleCI CI pipelines for LogDevice compiling, unit and system testing publishing to images to DockerHub and documents to GitHub. Allowing rapid signal for developers of the impact of their diffs on LogDevice-OSS.

Creation of Debian packages for LogDevice; to allow rapid installation.

Internal CI pipelines using Facebook infrastructure to give internal developers feedback on every diff.

Ported FBThrift-py3 to open source, the first Cython compiled open source offering from Facebook and a key component in opening many more projects to the community in its position as a building block for Facebook systems and services

**Amino Communications** **2010 - 2018**

Linux software development for media-streaming devices (STBs) and services. Hired to fill two roles: Scrum Master for the Platform team and "toolsmith" developing toolchains, release systems and developer tools to ensure developer productivity

Delivered a complete set of demonstrator services used to support the sales team in winning opportunities; including developing the ground-breaking concept of using an Amino STB as the cable to IP turn-around acting as the content source for the Amino's first AWS hosted CloudTV service

Developed automatic build and release systems to assure the stability of the common code base, aligning build and release processes to eliminating release day delays due to broken configuration

Migrated software development from CVS to Git including retention of complete version history allowing developers to take advantage of modern version control tool while retaining the ability to go back and understand the decisions behind code implementation.

Developed and maintained Debian packages for toolchains and common development tools ensuring a consistent build environment and hence reducing developer time tracking down machine specific bugs

Ensured developer communication, regular knowledge sharing as Scrum Master and team lead for AmiNET firmware, and later AVG (Audio, Video and Graphics) teams

Developed the company's first Scrum tool using MySQL, perl, HTML and Javascript, automatically synchronised with TestTrack Bug-Tracker allowing consistent prioritised backlogs for each team and reducing administrative burden

After Amino acquisition of Booxmedia, led the first cross-site team of Amino engineers taking our existing skills in Linux, multimedia decode for consumer devices and re-apply in the the delivery of OTT CloudTV video services

Working closely with our client through daily cross-company scrum stand-ups delivered Amino’s first end-to-end Service to screen multi-media video solution delivered through multiple DRM protected ABR formats (HLS, DASH, MSS). Including live streaming services (264 channel), recording services (50+ channels), radio channels, pause live TV

Investigated and resolved production issues across the system ranging mobile applications (iOS, Android); HTML5 UI, Web Services (PHP, Yii), media backend (Python); deployment systems (Ansible, Docker), Networking issues (e.g. IGMP)

**Global Graphics** **2008 - 2010**

Electronic document software; Managed team to deliver PDF workflow software using for Windows

**TTPCom** **2003 - 2008**

Mobile Telecommunications; GSM, GPRS and the first Intel-based 3G handset. Appointed to provide dedicated engineering support for integration to customers using TTPCom mobile stack. Later moved on to run teams and then then run the support team

Used in-depth understanding of build tools, TTPCom's release system and Perforce to create a tool chain that brought patches and releases together in a single process and reduced fix delivery times from 1 month to less than 1 day

Wrote Perl scripts which analysed the build options applied to each software module in both development and client profiles preemptively identifying and resolving latent defects

**Pace Micro Technology** **2000 - 2003**

Automated test system development, including C based API validation

**Philips Communications** **1998 - 2000**

Embedded Software Development for Pagers

## Education

**Certified Scrum Master (CSM) 2015**

**PRINCE2 Practitioner 2008**

**ISEB Practitioner in Software Testing 2003**

**MEng. (Hons) Electronic Engineering with Computer Science: 2-1 1993 - 1998**  
University of Wales Swansea  
4-year masters course plus one gap year in Fachhochschule Mannheim

## Further Information

Spoken Foreign Languages: German, Polish

Interests: Mountain Biking (competed 3 times in annual Dusk-til-Dawn 8pm - 8am endurance race.)