Curriculum Vitae

Personal information

Name: Christian Brunschen

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Nationality: Federal Republic of Germany, with Settled Status in the UK

Summary

I'm an experienced Software Engineer, a Glider pilot and instructor. I love when what I can do helps someone, and sharing what I know. I'm fluent in English, German and Swedish. I dabble in music and creative writing.

Employment

2006-06-04 - 2024-02-20: Google UK Ltd

Over the years I worked in a number of positions, in teams of different sizes and shapes, from solo architect, designer and implementer to working as a part of a team of dozens, and in smaller sub-teams. I worked on projects from small improvements in a larger context, to building entire systems including architecture, design, implementation, testing, deployment and monitoring:

Android Personal Safety – Integration with Google Takeout; the Personal Safety app including Safety Check (from UI to backend). Modernize backend systems. (Kotlin, Java, JavaScript & TypeScript, Python, SQL)

Android Platform – Logging & monitoring, user data migration between devices, interfaces between core Android and third-party vendor code. (Java, Python, SQL, C++)

Android Location – Part of Google Play Services on Android, continuous on-device tests. Automatically evaluate different parameterized Machine Learning. (Java, SQL, Python)

Google Beacon Platform – Google's Beacon Platform, including storage, service APIs, automated testing for Bluetooth Beacons; Applications to facilitate and manage large-scale beacon deployments, using Project Tango for spatial data and Augmented Reality. (Java, Python, SQL)

Google Offers – <u>Award-winning</u> offer discovery and distribution system; iOS and Android applications and libraries. (Objective-C, Java, JavaScript, SQL)

Mobile Applications Engineering – <u>Google Voice for iPhone</u> and Android, and other mobile apps, working closely with server-side teams. (Objective-C, C++, Java, Python)

Advertising – Designed and implemented high-volume customer-facing and customer-supporting web- and server applications. (Java)

Internal Systems – Designed and implemented internal applications that serve various of Google's teams throughout the world. (Java, SQL, C++)

High-volume Content Management and Publishing Systems. Tools including monitoring, statistics gathering and processing and system configuration. Web server modules and configuration for high-volume web servers. (WebObjects, XML, SOAP, server-side Java, Oracle, JMS, Apache modules, C and Perl).

2000-10-10 - 2001-03-27: AMS Management Systems UK

Designed and developed Web Applications using WebObjects (server-side Java, client-side Java & JavaScript). Trained and mentored other team members.

1999-08-02 - 2000-09-29: P & L Systems International, Ltd., Amersham, UK

Desktop applications for OPENSTEP and Mac OS X in Objective-C, web applications using WebObjects (server-side Java, client-side Java & JavaScript). Trained software developers (I am a certified Apple WebObjects trainer, *Programming WebObjects 1* and *Programming WebObjects 2*). Managed technical software development projects.

1997-1998: Gravity Interactive Communication AB, Malmö, Sweden

Software & web sites including web-accessible timetable & ticket ordering system, People & Location scheduling & tracking system. Administered client and server computer systems. (Perl, Python, HTML)

1995-1996: MacMeckarna AB, Malmö, Sweden

Various software & web sites including SVT's Teletext-to-www translator, www.svt.se/texttv/. Administered client and server computer systems. (Perl, Python, HTML)

Summer 1994: Axis Communications AB, Lund, Sweden

Automated testing system for development hardware (network print servers). (C++)

1992-06-01 - 1992-09-14: **AB Tetra Pak**, Lund, Sweden

Continuation of previous year's work (see below).

1991-06-10 – 1991-08-18: Tetra Pak Research & Development AB, Lund, Sweden

Developed software to allow device access using TCP/IP, Generated reports using embedded SQL for a plant automation project. (C, SQL)

Fall 1990: NoGyS AB, Lund, Sweden

Developed map digitizing software and printer drivers for GIS system (Turbo Pascal)

Education

Higher Education

September 1999

Presented my M.Sc. Thesis, 'OdinMP/CCp – a Portable Compiler for C with OpenMP to C with POSIX Threads', first at Lund Institute of Technology and then at the 1999 European Workshop on OpenMP (EWOMP'99, http://www.it.lth.se/ewomp99/)

Fall 1989 - 1999, with interruptions (see Employment above)

Datateknik, Datatekniksektionen vid Lunds Tekniska Högskola, Lund, Sweden Master of Science programme at the Department of Computer Science and Technology at Lund Institute of Technology, Lund, Sweden Complete list of courses and results available on request

Primary & Secondary schools

Fall 1986 - Spring 1989:

Polhemskolan, Lund Sweden

Spring 1984 - Spring 1986

Tunaskolan, Lund, Sweden

Fall 1983

Georg-Büchner-Gymnasium, Berlin, Germany

Fall 1977 - Spring 1983:

Käthe-Kollwitz-Grundschule, Berlin, Germany

Skills

Programming and Computer-related skills

Programming languages, primary:

Kotlin, Java, Python, C, C++, Objective-C, PostScript

Programming languages, secondary:

Perl, Pascal, Simula, Miranda, Logo, Lisp, Prolog

Computer systems, primary:

macOS, Linux, Microsoft Windows, Solaris and assorted other Unices

Language skills

Fluent (spoken, read & written):

English, Swedish, German

Semi-fluent:

Danish, Norwegian

Basics:

French

Other Work-related skills

Training:

Certified Trainer for Apple's 'Programming WebObjects I' and 'Programming

WebObjects II' courses

Miscellaneous skills and interests

Typing:

Rather fast, and pretty accurate – a side effect of typing a lot while programming etc.

Sports:

Gliding. UK Glider Pilot's License 2003, converted to EASA SPL (Sailplane Pilots License) in 2017, with passenger-carrying rating at London Gliding Club, and as of

2022, Basic Instructor rating from the British Gliding Association.

Music:

Playing the piano and related keyboard instruments

Singing (choir)

Composing and Recording (samples available on request)

Literature:

Science Fiction and Fantasy, reading and writing (samples available on request) Attended the 75th (2017) and 77th (2019) World Science Fiction Conventions

Open Source Projects

MorphPlot

Plots arbitrary images on pen plotters, using binary morphology. Also calculates the discrete Voronoi diagram for stippling grayscale images, using <u>2-opt</u> to create a

Hamiltonian path. CNC milling machine support in progress.

SMILemu

An emulator for an early (1950s) Swedish computer, Siffer-Maskinen I Lund aka SMIL.

Miscellaneous Accomplishments

June 2022

Initial issue of Basic Instructor Rating by British Gliding Association

October 2000

The article about my Master Thesis was published: *C. Brunschen and M. Brorsson, OdinMP/CCp – a portable implementation of OpenMP for C,* Concurrency: Practice and Experience. 2000; 12: 1193-1203. ISSN 1040-3108. (link)

September 1999

Presented my Master Thesis, <u>OdinMP/CCp – A Portable Compiler for C</u> <u>with OpenMP to C with POSIX threads</u>, at the first European Workshop on OpenMP, (see also the article published in October 2000, above)

October 1996

Co-author of PNG specification (see Credits)

1992-1995

Member of the board of the Computer Society at Lund University and Lund Institute of Technology (<u>www.dflund.se</u>), in various capacities:

- 1992-12-02 1993-05-05: Member of the board
- 1993-05-05 1994-05-07: Secretary of the board
- 1994-05-07 1995-10-31: System Manager

References

Available on request.