Curriculum Vitae

Personal information

Name: **Christian Brunschen**
Address: 42 Willington Road, London, SW9 9NE, UK
Phone: +44 (0)7811 – 33 06 35
Email: christian@brunschen.com
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

Current: **GlideWise Ltd**
As part of a team of three glider pilots at my local club wanting to improve gliding safety, I designed and implemented an Android app (Kotlin) to manage the GlideWise Canopy Flasher for glider conspicuity and safety, and assisted with embedded microcontroller code (C++) for the management APIs as well as the flasher functionality.

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 – Award-winning offer discovery and distribution system; iOS and Android applications and libraries. (Objective-C, Java, JavaScript, SQL)

Mobile Applications Engineering – Google Voice for iPhone 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++)

2001-05-01 – 2006-06-02: **British Broadcasting Corporation** – BBC News Interactive
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/ (archived))

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 2-opt 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, *OdinMP/CCp – A Portable Compiler for C with OpenMP to C with POSIX threads*, 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 (www.dflund.se), 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.