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| Peter Burkimsher |  |
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Summary

Computer engineer with broad experience technically and internationally, with deep knowledge of scripting, control systems, and networks. Independently motivated to pursue software and hardware side projects, and socially adept at meeting the needs of others. Together we can build practical, efficient solutions to satisfy your business and customers.

Technical skills

* Programmming languages
  + Scripting: AppleScript, Bash, JavaScript, Python, PHP
  + Compiled: C, C++, C# (.NET), Java (Android), Objective-C (Mac, iOS)
* Big Data
  + ElasticSearch, MatLab, SQL, ODBC, Tensorflow
* Embedded
  + Arduino, ODroid, PQI Air Card, Raspberry Pi, Rockbox, Salea, Verilog
* Tools:
  + Control systems: LabVIEW, OSC, SCADA (WinCC OA), SECS-II
  + IDEs: BBEdit, Eclipse, Visual Studio, Xcode
  + node-modules: express, jquery, leaflet, moment, socket.io
  + Cloud platforms: Github, Heroku, Google App Engine, Red Hat OpenShift
  + Virtualisation: BlueStacks, Emscripten, QEMU, VMWare Fusion, ESXi
  + Data recovery: bzip2recover, ddrescue, DiskWarrior, Prosoft Data Rescue
  + Network monitoring: Icinga, Pandora
  + Network hardware: Cisco, Fortinet, Juniper, HP ProCurve

Education

MEng Electronic Systems Engineering ▪ 2007 - 2011

Lancaster University, UK  
First-class honours. IET Prize for Outstanding Academic Achievement. Lancaster Award (extra-curricular).

EAP Exchange Programme, Computer Engineering ▪ 2008 - 2009

University of California, Santa Barbara

Volunteer experience

* CouchSurfing meetup co-host, Aug 2016 – Aug 2018
* 高醫團契兒癌病房陪伴事工 (Er-ai, weekly visits to pediatric ward), Nov 2014 – Aug 2018
* Friends International – Christian fellowship for international students, 2010-2012
* Computer repair for friends, 1999 - present. Bose headphones, MacBook Air 6,2 (x2), MacBook Pro 11,3, iPhone 5, 4S, 3GS, iPod Nano 6G and 1G, iPod 6G and 5.5G with iFlash. Data recovery and jailbreaking.

**Experience**

Project Engineer August 2014 – August 2018

InfoFab, OSE. Kaohsiung, Taiwan.

Responsibilities:

* Wrote driver software to control microSD card testing equipment (PPLU800, AF8652, TBPP12000), monitoring software to parse log files and send results to a SQL database, and a USB keyboard & mouse logger using a Raspberry Pi.
* Configured network monitoring dashboards with Icinga and Pandora.
* Set up Asterisk PBX systems, Microsoft Sharepoint, VMWare ESXi, and IT support for a client in Taipei.
* Evaluated Advanced Planning tools (Just Plan It, PlanetTogether, Netronic) for microSD testing.
* Took online training courses in big data processing with ElasticSearch and Tensorflow machine learning.

Achievements:

* Migration of proprietary C# device software to Node.
* Reverse-engineered closed-source DLLs to help colleagues debug APIs.
* Persuaded the chairman to upgrade the office network to fiber.
* Wrote a log file parser and SQL client without .NET to run on Win2000 equipment.
* Robotic arm control with Universal Robots.

Obstructive Sleep Apnea Algorithms Research November 2011 – March 2012

Fisher & Paykel Healthcare

Responsibilities:

* Ported device interface software to C for use on Mac and Linux (the driver was being used on a Mac Mini at the time, and is now used on the Raspberry Pi).
* Expanded features of Windows driver using C# on Visual Studio 2010, adding OSC and UDP output.
* Developed iPhone and web apps to edit Plist settings and display real-time streaming data.
* Integrated controller with Pertecs analogue computer, and developed a graphical schematic design tool.
* Learned basic OpenGL for graphing values in real time using Mark Titchener’s SpOd.
* Wrote thorough documentation about the control system protocol.

Achievements:

* Wrote a USB driver in C for an artificial lung, which is still in use as of 2017.
* Integrated new features into the C# driver on Windows.
* Developed my first PHP web app.
* A positive experience of teamwork in an English-speaking corporate environment.

Network operator October 2011 – November 2011

Lululemon Athletica

Responsibilities:

* Tested the installation of new network equipment from company headquarters.
* Changed DNS and gateway settings.
* Ran ping, VNC, and SSH tests.
* Guided on-site technicians through troubleshooting procedure.

Achievements:

* Transitioned 150 stores from ADSL to T1 with 3G failover.
* Learned how to configure Cisco and Juniper network switches.

Intern – Association management and databases June 2009 – August 2009

HealthDiplomats

Responsibilities:

* Database management of contacts.
* Proofreading documents for the WMA.
* Assistance at the ECOSOC convention.
* Project proposal for an SMS-based pandemic tracking system.

Side Projects

Data Archiving

Copied data from 5.25” floppies, DD floppies, HD floppies, JAZ disks, SCSI drives, and old computers. Extracted ROM files for emulators. Categorised shareware from MacFormat magazine cover disks 1996-2005. Shared data with Macintosh Repository and Macintosh Garden.

Pingtype

Chinese/English language exchange tool including glyph keyboard, word spacing, Pinyin Romanisation, literal translations, and parallel text. Gathered data from the Bible, 20k restaurant menus, 2M song lyrics, TED talks, movie subtitles, and comics. Submitted a proposal to add 11 new characters to the Unicode standard. Manually made 5025 dictionary edits to improve translations instead of Google Translate. I can now type a few characters, search the lyrics, and sing along in church.

Big data

Analysed Taiwan Foreign Residents data, and got published on the news.

Built a model of Facebook Likes to sort interests into a personality profile.

Synthesized all possible four-chord musical progressions, and analysed data from existing song sheets.

Drew a time-proportional train map, wrote an offline timetable app, and map of city bike locations.

References

Professional: Mr Edward Duh

Position: Chairman, OSE. Supervisor at InfoFab and OSE.

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Email: Edward\_S.\_Duh@ose.com.tw

Personal: Mr Matus Peciar

Position: Programmer, worked together on side projects.

Address: Generala Svobodu 828/71, Partizanske 95801, Slovakia

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