Taku Koyahata

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PROFILE

senior software developer, solution architect specializing in database / embedded / web / visual processing / mobile applications.

EXPERIENCE

Apr 2022 - Aug	Nihon System Consultant	Senior System Engineer	Hokkaido,
2022			Japan

- Development of web based self service software used by university students, staff, and faculty for course registration, certificate request, etc.
- · Java, JSP, Eclipse, PostgreSQL
- · unit testing and implementation

May 2019 -	Fujisoft Incorporated	Senior System Engineer	Hokkaido,
Mar 2022			Japan

- Development of control panel software for Mori Seiki Machine tools.
- Used by operators for managing iron bar processing for bolt manufacturing, and changing tooling.
- Design, unit testing, integration testing, and implementation.
- · C++, embedded Windows, and Visual Studio

Mar 2017 -	Social Capital Designs Co.,	Senior System Engineer	Hokkaido,
Jan 2019	Ltd.		Japan

Developed public infrastructure inspection software.

- ①Development of Drone control software to be used for bridge inspection under GPS inaccessible environment.
- · C++, Raspberry Pi, DJI Matrice600, DJI Onboard SDK, DJI Mobile SDK, android application(Java)
- \cdot RPLidar A2(2D lidar sensor), Lidar-Lite v3(1D distance sensor), supersonic distance sensor(IWS520-USB)

- ②Development of software to assist in measuring cracks in concrete wall images.
- OpenCV, Dot Net framework, C#

3SNS service

- development an alpha version of SNS service that allows users to create, post, and view their walking routes
- Users edit their walking plans on their mobile phones(iPhone, Android), and share by submit to PHP server.
- · Augmented Reality: Shows a geometrically-accurately placed destination points on the actual camera image in real time.
- PHP, MySQL, Google Map API, android app (java), iPhone app (XCode, Swift)

4 Mobile application for river survey

- Android map application used to create river survey reports
- · User takes photos of rivers and edits the survey reports by using this app
- User can downloads map images in advance, so that they can use it under the no network environment
- · android app (Java), Android Studio, JavaScript, leaflet.js
- ⑤Application surveying concrete walls crack length
- · A program that detects the length of a chalk line drawn along with cracks on a walls.
- · C#, Visual Studio, OpenCV
- · external design, internal design, implementation, testing

Mar 2017 -	Media Pro Inc.	Senior Software Engineer	Hokkaido,
May 2017			Japan

①Livestock health checkups web system

- implementation, unit test
- · PHP, smarty, jQuery, Oracle, NetBeans

2shop stock recognition system

- Detects stock with image processing of shelves photo(OpenCV)
- · developed Web UI part(Angular.js, fabric.js)
- · internal design, implement, unit testing
- · Javascript, Angular.js, fabric.js, MySQL, Ubuntu(Linux)

Jun 2016 -	Do-Gen Co.,Ltd.	Senior Software Engineer	Hokkaido,
Feb 2017			Japan

- replacing the existing sales management system from Excel to MySQL server.
- this software manages orders, inventory, and purchases for the electric light distributor(Do-Gen Co.,Ltd.).
- · Microsoft Excel VBA, MS-ACCESS, MySQL, Fedra(Linux)

May 2016 -	SAJCO Corporation	Senior Software Engineer	Hokkaido,
June 2016			Japan

- server setup, existing application re-configuration
- · Road repair status management software
- · ASP(not ASP.net), IIS, Windows Server 2003

Jan 2014 - Apr	IK Systems Co., Ltd.	Senior Software Engineer	Hokkaido,
2016			Japan

- ①Co-op warehouse management system
- · implementation, unit testing
- · PHP, JavaScript(JQuery, Ajax), Eclipse, SQL server
- 2 cleaning company sales management system
- · Adding functions
- · implementation, unit testing
- · VB.net, Active Report, SQL server
- 3 agricultural sales management system
- · Add new features
- · Internal design, implementation, testing
- · VB.net, SQL Server
- 3 picking system controller control software
- abstract: picking staff read customer barcode, the lights of the stock shelves having ordered products are on , staff picks the products, packs and sends it to customer
- Fix the existing bugs
- implementation, testing
- · VB.net, Visual Studio 2010, Oracle
- (4) bank attendance management web system
- abstract: bank staffs login to this web system when they attend to work, log out when they leave out. Company use this log to calc their wages. considered while calculation: basic attendance schedule, special allowance for overtime and late-night work

- · Fix bugs and add new features.
- · a member of the two-member-team
- · internal design, implementation, testing
- · ASP.net, CSS, Visual Studio 2010, ComponentOne(middleware), SQL Server
- ⑤CMS site of the organization of certificate of accreditation of disposal of belongings
- · add new features, backup, and update Joomla
- · Joomla, PHP
- · implementation, testing

6AutoCad dll

- · development of dll for AutoDesck AutoCad.
- · internal design, implementation, testing
- · VB.net, Visual Studio 2012
- · a member of the three-member-team
- 7the system which manages the contents of school repairs
- · a member of two-member-team
- · implementation, unit testing
- PHP, MySQL, Microsoft Excel

Jul 2014 - Aug	IKEUCHI VENEER CO.,	Senior Software Engineer	Hokkaido,
2014	LTD.		Japan

- implement Yahoo Shop APIs and Rakuten Store APIs into existing sales management EXCEL book
- I had to develop .Net base dll because Excel VBA cannot deal with client certificate.
- · external design, internal design, implementation, testing
- · Excel VBA, VB.net, Ajax, Visual Studio, Yahoo Store API, Rakuten shop API, OAuth

Apr 2004 - Jul	Medical Corporation	In-hospital full stack	Hokkaido,
2014	Shinsankenkai	system engineer	Japan

- · Mainly developed the health check-ups database system used in the hospital
- Number of employees of the hospital were about fifty at first time, then increased.
- PC setup, application install, network setup, and all other system-related works, too.
- · MS-ACCESS, Microsoft EXCEL VBA, PHP

2003	Japan

Development of web system that manages the progress of construction by uploading

photos taken at the construction site

- · a member of two-member-team
- · internal design, implementation, testing
- PHP

July 2003	NTT DATA HOKKAIDO	Software Engineer	Hokkaido,
	Corporation		Japan

Excel application used in government tax offices

- · a member of five-member-team
- · implementation, unit testing
- · Excel VBA

Apr 2003 -	DATT JAPAN Inc.	Software Engineer	Hokkaido,
Jun 2003			Japan

Development of bundled software for IC recorders. Software that joins, divides, and rearranges audio data (ASF) saved by a recorder on a PC. ASF is operated via Microsoft's SDK.

- · a member of two-member-team
- · internal design, implementation, testing
- · C++, Visual Studio, MFC

Jan 2003 -	Hokkaido NEC Software Inc.	Software Engineer	Hokkaido,
Mar 2003			Japan

Development of mobile phone browser

- a member of 5-member-team
- · internal design, implementation
- · C language, CVS

Dec 2002	Advanced Technology &	Software Engineer	Hokkaido,
	Planning Co.,LTD.		Japan

Japan self-defense forces item management database system

- testing
- · MS-ACCESS

February 2002 - November 2002

Software Engineer, Media Pro Inc.

- ①DB application used by the police
- implementation, unit testing
- · Visual Basic 6, Oracle, PL/SQL, Crystal Report

- ②Character movement program of 3D chat system
- · implementation, unit testing
- · need knowledge of linear algebra
- · C++, Visual Studio
- 3 development of expired gas cylinder detection system
- abstract: gas cylinder inspector download expired gas cylinder lists from DB into the barcode reader in advance, check the expiration with touch gas cylinders with the barcode reader
- I had to implement binary search because barcode reader is too slow to linear search.
- · internal design, implementation, testing
- · MS-ACCESS(VBA),C(language) for barcode reader firmware

September 2001-October 2001

Part time software developer, Interglobe Co., Ltd.

development of DLL for SVG(Format of vector image)

- · need knowledge of linear algebra
- · internal design, implementation, unit testing

July 2000 - July 2001

Software Engineer, B.U.G. CO., LTD.

switch board Firmware development

- · internal design, implementation, unit testing
- C(language), home brew kernel, Motorola MPC860, Real Time Operating System(RTOS)

Other Experiences (mainly hobby and my own research)

- Omaintenance and setup of my own server (koyahatataku.com)
- my own site (http://www2.koyahatataku.com/) and mail(koyahata@koyahatataku.com)
- · MySQL, Wordpress, dovecot, postfix, PHP, SSH, CentOS(Linux), etc.
- 2 development of chess clock

http://www2.koyahatataku.com/koyahatasoft/chessclockkit/

• full stack(design of printed circuit board, choice of microcomputer, choice of LCD, development of software, hardware, importing devices from china, order PCB to china,

all)

- PIC microcomputer, C(language), Microchip MPLAB
- ③development of puzzle solvers(Sudoku, Number Area, Rush hour, Pentomino) http://www2.koyahatataku.com/sapporo_chess/prolog.html
- · breadth first search, depth first search
- · Prolog(language)
- ①development of morphing movie maker
 making morphing movie from two still images and corresponding point information.
 research at university
- · needs linear algebra, image processing knowledge
- · Macintosh, QuickTime, Think C

EDUCATION

Muroran Institute of Technology - Bachelor of Computer Science 2000 (Research of Image Processing)

CERTIFICATIONS

- \cdot Second Class Information Processing engineer
- · Level 2 of the English Language Proficiency Test
- · 2nd grade of the mathematics certification exam
- · amateur radio 1st class(Similar to FCC license in America)

Languages

Japanese-Native

English-Intermediate