Canhong Lin (Jason)

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WORK EXPERIENCE

Microsoft **Software Engineer, Intern** 03/2014-09/2014, Asia R&D Headquarters, Beijing

- Microsoft China Center One Showcase Project: This project is to demonstrate Microsoft's technology achievements on a super large panorama screen (11024*1200, 300deg) and 3D multiple screens by using diverse 3D animations and human-machine interactions. I was responsible for building 3D and data visualization on a demo framework, Microsoft CityNext Smart City Solution, and Azure Global Data Center and Service. My work was reviewed by Bill Gates on 17/06/2014 and got high appreciation. In this project, I have achieved the following tasks:
  - Tackled the complex problems of mapping and fitting real data in 3D environment as well as 3D perspectives to a 2D panorama screen and forming the best visual effect and experience.
  - Surveyed cutting-edge technologies and data visualization solutions, quickly and iteratively integrated them into the project, and improved the performance of the computation and rendering of complex animations on web.
- Chinese Calligraphy Input Source (Top 23 in the ARD finalist of Microsoft Global Hackathon 2014): Based on XNA game framework and Windows Phone SDK, the program traces the trails of how a user touches a phone screen and calculates the distance, velocity, and direction between touch points, uses the brush texture of Chinese calligraphy to draw artwork.
- 3D Model-based Scenario Remote Debugger and Monitor: This project aims to enable remote debugging and monitoring of the applications deployed in museums/exhibition centers. I built client/server/client architecture and applications that capture real-time screenshots and renders images on 3D models.
- Recipe Recommender System based on WeChat and Big Data: This product is for recommending recipes to WeChat users based on user profiles and preferences, by leveraging web crawlers, Chinese semantic analysis, and Machine Learning techniques.

Tencent **Software Engineer, Intern** 07/2010-01/2011, headquarters, Shenzhen

- Tencent Agile R&D Project Management System: An integrated platform for R&D products/projects management, including iteration planning, features and bugs tracing, project progress control, and development/test workflow automation. I was engaged in full-stack development, including product design, back-end/front-end development, bug fix. My communication skills with different roles in a fast-paced and agile team is significantly improved.

Vanke **Project Assistant, Intern** 09/2011-10/2011, headquarters, Shenzhen

- Workflow Automation System for a NGO Charity Program: The program aims to save children who are born with severe heart attacks. I independently interviewed with medical doctors, volunteers, donators, etc to collect user requirements and convert them into software functions. I designed and prototyped a cross-role and cross-function workflow automation & management to enable synchronizing information and workflow statuses.

OPEN SOURCE

jcompressor	A Closure Compiler-based compressor (node package) that compresses all .js files in a folder. It is published on NPM open-source community.
H5C	A light-weight HTML5 feature checker.
syn.io	A JavaScript library of WebSocket API, which facilitates calling WebSocket APIs by writing less code.
smodular	A light-weight JavaScript library for dynamic module pattern of JavaScript.

PROJECT EXPERIENCE

CakeServer	A light-weight http server	C++
3D-Monitoring	A tool for remotely capturing screenshots and 3D rendering for remote debugging and monitoring	OpenGL(web), JavaScript, C#
Synus	A P2P video & whiteboard synchronizing website (touchable, cross-device, and plugin-free)	WebRTC, WebSocket, Node.js
Align	A crowd funding & joining platform for NPO/NGO projects	Node.js, MongoDB, Backbone.js
SpotSlides	A collaborative slides making tool	Raw JavaScript, Node.js
TAPD	An integrated system for agile IT product development	CakePHP, MySQL, jQuery
xWiki	An XML-based Wiki finder & reader based on Parallel xQuery	Parallel xQuery, Node.js
WebEval	A coal production planning & performance evaluation system	JavaEE, MySQL, JavaScript

EXPERTISE

C++, Java	STL, Multi-threading, network/socket, GUI
JavaScript, Node.js & Web Front-end	Object-oriented JavaScript, Backbone.js, HTML5
Mathematical modeling and approximate algorithms-based optimization	Operations Research, meta-heuristics (GA, LNS, VNS)
Product prototyping, development and User Research/Experience	Axure, Blend, Agile

HONORS & AWARDS

M.Phil. Full Studentship (331,200 HKD), 2011-2013	Awarded by University/HK Government to support my research degree
Significance Contribution to MCCO at Microsoft, 2014	Issued by the COO of Microsoft for my dedication and enthusiasm at Microsoft
Top 23 in Microsoft 2014 ARD Hackathon, 2014	Top 23 out of 120+ projects and was invited for demo and voting
University Outstanding Graduate, 2011	Awarded by the university for my high academic performance

EDUCATION

Master of Philosophy in Systems Engineering, The Hong Kong Polytechnic University, Hong Kong (2011-2014, **full studentship**. GPA: 3.7/4).

PUBLICATIONS

Lin, C., Choy, K.L., Ho, G.T.S., Chung, S.H., & Lam, H.Y. (2014). Survey of Green Vehicle Routing Problem: Past and future trends. *Expert Systems with Applications*, 41(4), 1118-1138.

Lin, C., Choy, K.L., Ho, G.T.S., & Ng, T.W. (2014). A Genetic Algorithm-based optimization model for supporting green transportation operations. *Expert Systems with Applications*, 41(7), 3284-3296.

Lin, C., Choy, K.L., Ho, G.T.S., Lam, H.Y., Pang, G.K.H., & Chin, K.S. (2014). A decision support system for optimizing dynamic courier routing operations. *Expert Systems with Applications*, 41(15), 6917-6933.

MISCELLANEOUS

- Language proficiency: English (fluent), Mandarin (native), Cantonese (native), Teochew Dialect (native).
- Hobbies: Hiking, cycling, table tennis, startups, design (My portfolio of UI design: Web Design).