**BENJAMIN STEWART**

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**OBJECTIVE:** Utilize web technologies to build end-to-end applications based on a service-oriented

 architecture.

**EDUCATION:**

10/01 - 03/04 M.S. in Computer Science University of Washington

08/97 - 05/01 B.S. in Computer Science, *Summa cum Laude* University of Maryland, College Park

**SKILLS:**  Languages: Java/JavaScript, HTML/CSS, C/C++/C#, Perl, Python, Powershell

 Frameworks: JAXRS, AngujarJS, DropWizard, Lombok, Jackson, Quartz Scheduler,

 MongoJack, WIN32/WinRT/COM, SAX/DOM/XSLT, Hibernate, JUnit

Databases: MariaDB, MongoDB, mySQL

Software: ElasticSearch, kubernetes, Docker, NGINX, RabbitMQ, AWS,

 GitLab CI/CD, Grafana, Kibana, Splunk

Operating Systems: LINUX/UNIX, Windows, Android,

**EMPLOYMENT:**

12/16 - Present zulily Software Engineering Manager

 Software Engineering Manager of software engineers building solutions for Vendor

 Operations, Vendor Portal and Editorial Studio Operations teams. Interface with Product

 Management Tech team and Project Coordinators within business teams to define

 requirements, prioritize projects and track/communicate project status. Design the architecture

 and drive the operations decisions for the software developed by the team.

05/16 - 12/16 zulily Lead Software Engineer

 Lead software engineer for Editorial Studio Operations team. Built workflow tools and

 management software to allow Merchant and Studio Operations team coordinate requests for zulily

 home page photography which highlights vendor products for sale on the site.

 Created and deployed Java backend services as well as JavaScript/Angular UI apps deployed via

 Kubernetes to Google Container Engine. Leveraged Google Storage for storing images produced

 by Studio Operations team. Designed data schemas for tracking image request, image, task and

 workflow metadata in Mongo.

02/15 - 04/16 zulily Senior Software Engineer

 Developer on Vendor Operations team. Built mySQL databases and Java web services for:

 automating ingestion of EDI invoices, purchase order scheduling and automation as well as

 delivery of purchases orders via EDI/e-mail. Created JavaScript/Angular UI for viewing

 and managing vendor task workflows to improve Vendor Operation Specialist efficiency

 managing Vendor relations.

11/05 – 01/15 Microsoft Senior Software Engineer

 For Windows 10, worked on porting location aware scenarios for Cortana from Windows

 Phone to Windows using the WinRT framework. For Windows 8.1, integrated Bing Smart

 Search into Windows Shell. Technical lead for cross-team engagement with Bing to

 design client/server protocol for sending queries and passing results to XAML rendering

 layer. Implemented client portions of the protocol. For Windows 8, worked on Live Tiles

 API. Wrote client connectivity layers which maintain persistent TCP connection to

 Windows Notification Service (WNS) for receiving push notifications. Collaborated

 with Kernel & WNS teams to design policies for optimizing network usage on

 Mobile Broadband networks and increasing battery life. For Windows 7, wrote C++ APIs to

 Search diagnostics built into Windows/hosted by Microsoft services. For Vista, used C# to

 build/publish diagnostics for automated problem detection during support calls.

03/04 – 11/05 Marchex, Inc. Software Engineer/Technical Lead

Led team of developers in design/implementation of technologies related to Direct Navigation business. This included data modeling and RESTful web services for domain management, data warehousing of web/click traffic and dynamic content generation for 200,000+ domains. Worked with Enhance Interactive business to port Advertiser AMS from .NET to MVC design using Jakarta Struts/Velocity. Integrated Auto-CPC functionality into proprietary PPC Engine.

07/02 – 01/04 Computer Science and Engineering, University of Washington Research Assistant

Conducted research for Centibots project. Project encompassed 100 robots autonomously exploring/mapping large indoor environments while performing surveillance/people tracking. Developed multi-threaded multi-robot system in C++. Built the structure of indoor environments using Bayesian statistical methods/machine learning. Adapted particle filters for localization and map merging.

**PUBLICATIONS:**

* *Extracting places from traces of locations* J.H. Kang, W. Welbourne, B. Stewart, G. Borriello. WMASH-2004
* *The Revisiting Problem in Robot Map Building: A Hierarchical Bayesian Approach*

B. Stewart, J. Ko, D. Fox and K. Konolige. UAI-2003

* *A Practical, Decision-theoretic Approach to Multi-Robot Mapping and Exploration*

J Ko, B. Stewart, D. Fox, K. Konolige and B. Limketkai. IROS-2003

* *Map Merging for Distributed Robot Navigation*

K. Konolige, D. Fox, J. Ko, B. Limketkai and B. Stewart. IROS-2003

* *A Hierarchical Bayesian Approach to the Revisiting Problem in Mobile Robot Map Building*

D. Fox, J. Ko, K. Konolige and B. Stewart. ISRR-2003

* *Distributed multi-robot mapping*

D. Fox, J. Ko, B. Stewart, K. Konolige, and B. Limketkai. *Multi-Robot Systems: From Swarms to Intelligent Automata*, volume II. Kluwer, 2003.

* *CentiBOTS: Large-scale robot teams*

K. Konolige, C. Ortiz, R. Vincent, A. Agno, M. Eriksen, B. Limketkai, M. Lewis, L. Briesemeister, E. Ruspini, D. Fox, J. Ko, B. Stewart, and L. Guibas. *Multi-Robot Systems: From Swarms to Intelligent Automata*, volume II. Kluwer, 2003

**PROJECTS:** A portfolio of academic, research and personal projects can be found online at:

 <http://onenationunderagroove.net/portfolio/>

**ASSOCIATIONS:** DJ/Record Librarian at 88.1 FM WMUC, College Park, 1997-2001