Kate Wasynczuk

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EDUCATION

TUFTS UNIVERSITY
BS in Computer Science
August 2016 | Medford, MA

MILTON ACADEMY
June 2012 | Milton, MA

COURSEWORK
Data Structures
Machine Structures & Programming
Programming Languages
Web Programming
Web Engineering
Intro to Human Factors
Computer Interface Design
Human Computer Interaction
Advanced Graphic Design
2D Animation
Game Design
Concurrency
Algorithms
Computational Theory
Internet-Scale Distributed Systems

AWARDS
2018 - GE IMPACT Award
2016 - Tufts Krumme Award for
Experimental Computer Science
2015 - Hack at Brown 2Sigma Award
2015 - PennApps Facebook Award
2014 - Polyhack 360 Consulting Award
2013 - Varsity Women's Sailing MVP
2012 - Milton Academy Arts Award
2012 - Varsity Sailing MVP

SKILLS
Programming Languages
C++ • C • JavaScript • HTML/CSS
Java • LaTeX • Python • Erlang • Go
ML • Scheme • Gremlin • Swift
Assembly (AMD64) • C# • Smalltalk

Tools & Technologies
Sketch • Illustrator • Photoshop •
Adobe Animate • InVision • Marvel
Rally • Aha • Confluence

Interests
Teaching & Early Education •
Responsive Design • Wearable
Devices • PCB Routing Algorithms •
Computational Theory • Geometric
Folding Algorithms • Figure Skating
Sailing • Rock Climbing • Tinkering
The Outdoors • Sudokus

EXPERIENCE

DTLP ROTATIONAL LEADERSHIP PROGRAM | GE Digital
July 2016 – Present | San Ramon, CA
Developer Relations - Project Manager: PM for external-facing collegiate Hackathons. Led organization execution of 4-month cross functional hackathon collaboration with Predix, Current, CSU schools, & the City of San Diego.
DTS Incubation - Technical Product Manager: Established development time line & release schedule to graduate a safety-oriented POC to a market-ready product. Led team of six developers & designers. Responsible for defining, prioritizing, & communicating work items to the team. Led design of application wireframes (Sketch) & created InVision mockup. Investigated emerging technologies such as AR/VR, Bluetooth Beacons, & wearable devices to identify potential use cases in industrial spaces.
Digital Twin Runtime - Backend Developer & TPM: Developed extensible graph-based storage solution for asset-related data & protocol for edge devices communicating with Predix cloud. Led & organized design thinking workshop to identify core user base & align product accordingly. Led team's bi-weekly meetings & stand-ups to drive productivity & good agile development practices.
APM Analysis - Front End Developer: Developed new chart types to meaningfully display an asset's time-series data using Polymer web framework. Led research & execution of creating flexible SDK for securely monitoring user activity across single web app that utilized multiple web frameworks.

TEACHING ASSISTANT | Tufts University
Jan 2015 – May 2016 | Medford, MA
Teaching Assistant for Intro to Programming (C++), Data Structures (C++), & Web Programming classes. Responsible for planning & teaching weekly labs, assisting students during office hours, & grading homework assignments. Served as a 'Guest Lecturer' as needed.

PEGASYSTEMS | Software Engineering Intern
May 2015 – Aug 2015 | Cambridge, MA
Worked on UX scrum team to create a new feature for the developer-facing product. Conducted user research, planned & implemented feature, & further refined feature based on user testing & feedback.

PROJECTS & RESEARCH

GE GIRLS | Curriculum Designer & Core Organizer
Jan 2017 – June 2017 | GE Digital
Created curriculum for week-long STEM summer camp. Focused on building up middle school girls' understanding of basic circuitry with LED necklace & re-programmable step counter projects.

WEARABLE DEVICES | Lecturer & Curriculum Designer
Jan 2016 – May 2016 | Tufts University
Designed and taught a course for CS undergrads to introduce students with software-driven backgrounds to the basics of analog and digital circuitry. Led the design of curriculum and teaching materials, and co-taught with Raewyn Duvall and Prof Chris Gregg.

THEIA RAY TRACER | Built with C++
Dec 2015 | Medford, MA
Concurrent ray tracer that breaks a scene into pieces so that the rendering work can be distributed over many machines. Link to github

MUSICAL TYPEWRITER PRINTER | Built on Arduino
Mar 2015 – July 2015 | Medford, MA
Turned a Smith Corona electric typewriter into automated printer using an array of solenoids mounted on acrylic, controlled by a series of shift registers on a custom PCB. Project details available through Gizmodo and/or HACKADAY.

KINECTED GRAPHS | Built with C# in Unity
Feb 2015 | Medford, MA
Using the Kinect, Kinected Graphs allows the user to traverse a database of many-to-many relations in a 3D environment, navigating nodes by hand.

PUBLICATIONS

C. Gregg, R. Duvall, K. Wasynczuk. "A Modern Wearable Devices Course for Computer Science Undergraduates"
47th SIGCSE Technical Symposium on Computer Science Education. Seattle, WA, March 2017.
http://dl.acm.org/citation.cfm?id=3017731