A. Madhavan

Lead User Experience Designer

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Personal Statement

My Experience as a UX designer and software developer, encourage me to lead a team, which designs and develops software products with strong focus on users perspective.

Work Summary

I have 8 years and 5 months of industrial experience in designing and developing interactive software products. In which, I have 2 years and 8 months of experience in designing software as a user experience designer and 5 years and 9 months of experience in designing and developing 3D visualization software.

DESIGN WORK SUMMARY
- Leading a UX team to design enterprise web application to collect data, apply business intelligence, analyze and improve the performance of industrial equipment's.
- Managed UX design team for mobility. In charge of interaction design, visual design, detailed design delivery and pixel perfect frontend implementation.
- Crafting the design to be responsive, to have optimal viewing experience in mobile devices, for Android and iOS platform.
- Collaborating with stakeholders and making confident design recommendations.
- Improve and iterate the design after analyzing the users feedback.
- Designed the complete user interfaces for 3 Android TV and a desktop application.
- Designed futuristic HMI concept for Japan multinational and largest automaker, got a Bravo award for the effort and contribution.

DEVELOPMENT WORK SUMMARY
- Managed development team and responsible for team deliverables.
- Explored, researched, prototyped and recommended new tools and technologies to meet new business requirements.
- Designed 3D visualization software architecture and documented it using UML.
- Developed API, Plugins and 2D/3D algorithms to manipulate objects in 3D space as engineering needs.
- Provided the technical assistance to development team, defined and enforced best practices for software development.
- Deep work experience in software design methodologies, information architecture, Object oriented design and software design patterns.
- Learned and practiced better programming methods at early stages of my development.

Employment Details

Clarice Technologies Pvt. Ltd.   July 2014 to till date
Designation: Lead UX Designer.

Tata Elxsi Limited.   Aug 2012 to June 2014
Designation: Lead UX Designer of Mobility Team   (Feb 2013 to June 2014)
Designation: Senior Designer at Philips TV Interaction at TPVision India Pvt. Ltd.

Visual Collaboration Technologies Pvt. Ltd.   Oct 2004-July 2010
Designation: Project Leader.

Self-employed, Farming at home town.   May 2003-Sept 2004
Concurrently practiced software development by learning C and C++ languages and seeking job in software industry.

Education

Master of Design, Industrial Design   CGPA: 9.13/10
IIT Kanpur.   July 2010-May 2012

Bachelor of Technology, Production Engineering   CGPA: 7.0/10
Madras Institute of Technology, Anna University   July 1999-April 2003

HSC | SBK, TN State Board | 1997-1999 | 87%
SSLC | SBK, TN State Board | 1996-1997 | 82.6%

Skills

Design: Competitor analysis, Stakeholder interviews, Contextual Inquiry, Diary study,
               User interviews, Heuristic review, User testing, Use cases, Story board, Personals,
               Scenarios, Wireframe, and Prototype.
Design Tools: Adobe CS6 Web Premium, GIMP, Inkscape. Microsoft Powerpoint,

Domain: Computer Graphics, CAD/CAM/CAE data visualization.
Programming Languages: C++, C, VC++, Java, Android, Processing.
API: OpenGL, Ogre3D, OSG, OpenSG, wxWidgets, MFC, WebGL.
3D Specifications: VRML, X3D, U3D, STL, .scene.
Development Tools: Visual Studio C++ 6.0, Eclipse, Code::Blocks, Git, vi.
Web Tools: HTML, CSS, and JavaScript.
Operating System: Windows, Linux, and IRIX.

Honors and Awards

Got a "BRAVO" award for the effort and successfully completing the project on time. Business owners mentioned our futuristic HMI design concept as "beautiful" and it was successfully showcased at auto show.

Second runner's up in Basha 2011, conducted by Nokia design research centre, Bangalore.

Won 1st Prize in PD6 design contest and awarded 2nd place in identifying bad design contest at USID Gurukul 2010.

Presented paper at DESIS India symposium "Design, a Catalyst of Sustainable India" at NID, Ahmedabad.

Got selected and successfully completed the project at PDP, Design Factory, Aalto University, Finland.

Design Projects

Practiced Human Centered Design. User and their need are my realization after into design. Not only humans, all living being needs an interaction with its surroundings at least to fulfill basic needs. As a designer, strongly believes in improving their interactions with surroundings enrich experiences.

- Design of Industrial APM services
- Design of Philips TV companion mobile application (iOS and Android).
- Design of Channel Editor, Desktop application for Philips Android TV.
- Design of Philips TV Interactions.
- Design of HMI for Nissan futuristic concept car (friend-me).
- Interactive System for visually challenged.

    a. BrailleWrite

    b. Braille VK

    c. zooMM

- Mukana - Travelers safety and comfort.
- StudyBuddy (knowledge sharing, connectivity and affordability)
- Sweetspot dustbin (clean and hygienic)

PROJECT 1.

Name: Design of Industrial APM Services

Duration: 9+ Months (till date)

Team Size: 6 UX Designers, 2 Visual Designers

Platform: Web

Role: Lead UX Designer

Description: Conceptualized a mission critical, scalable ecosystem within the engineering equipment performance management domain for various touch points - desktop, tablets, mobile and Google Glass to enable people in industrial units to manage the performance of equipment and machinery by using analytics, business intelligence tools and meaningful KPI visualizations. The new solution allows users to efficiently collect data from the field, analyze, manage risks and enhance productivity of assets - guiding them to perform ancillary tasks and activities along the way.

PROJECT 2.

Name: Philips TV companion mobile application

Duration: 6 Months

Team Size: 8 Designers

Platform: Android and iOS.

Role: Lead UX Designer

Description: This project was to design a companion mobile application to view TV contents and to control Philips TV using mobile platforms. This application was made to be responsive to adopt the different screen sizes.

PROJECT 3.

Name: Desktop Channel Editor for Philips TV.

Duration: 2 Months

Team Size: 3 Designers

Platform: Windows.

Role: Concept generation, wireframe, presentation, Interaction and UI design, iterate the design, visual design review.

Description: This project was to manipulate TV channels on desktop for the user convenient. User can manipulate (change name, change order, change logo) thousands of channels at a time. The design is flexible enough to adopt for mobile devices in future version of channel editor.

PROJECT 4.

Name: Internet Browser for Philips Android TV.

Duration: 3 Months

Team Size: 3 Designers

Platform: Android TV.

Role: Concept generation, wireframe, presentation, Interaction
               and UI design, iterate the design, visual design review.

Description: This project is to redesign the existing android internet browser to follow Philips design guidelines to bring consistency among the Philips TV product.

PROJECT 5.

Name: Design HMI Concept for Nissan concept car.

Duration: 7 Months

Team Size: 5 Designers

Platform: Windows.

Role: Requirement collection, Concept generation, Wireframe,
               analyzing the feedbacks, iterating the concepts,
               coordinating and review the visual designs.

Description: This project is to create a futuristic interactive experience of HMI for Nissan future concept car and showcase in an auto show for Chinese youth. Followed business owner and onsite coordinates to understand exact requirements. Creating persona, coming up with insights, validating insights with business owners and draw whole pictures of project in terms of user, product and context in which user interact with product. Coordinated and explained the concept by means of wireframes, paper prototypes to visual designer to create actual demo using Adobe design tools.

PROJECT 6.

Name: Interactive systems for visually challenged.

Need: To design and develop a product that enables accessibility
               of touch screen devices for visually challenged.

Process steps: Target users, user study, analyze data, find and define user
               need, ideation, brainstorming, concept selection, prototype,
               user testing, and conclusion.

Outcome: **BrailleWrite** and **BrailleVK**. An application designed and developed to improve the accessibility of touch screen devices for visually challenged. This is a new way of interacting

to touch screen devices using the familiar Braille system. Also, **zooMM** has been designed and developed to measure the distance up to a minimum count of 1 millimeter for visually challenged.

Mukana *(safety and comfort)*
A mobile application designed to improve the safety and comfort for the business travelers. Mukana is a fast, easy and secure way to send sensitive information in the form of digital data. Application designed for windows mobile using metro design language.

SutdyBuddy *(Knowledge sharing, connectivity, affordability)*
An application designed for Aakash tablet that makes learning social for school students by capturing and sharing class activities in order to enhance & augment their learning experience.

Sweet spot dustbin *(clean and hygienic)*
The material product designed and developed to motivate everybody to act more responsibly and help keeping the surrounding clean and hygienic.

Development Projects

PROJECT 1. VCollab Professional/VCollab Presenter

Team Size: 4 Developers

Platform: Windows, Linux.

Description: VCollab is a high performance visualization software for CAD/CAM/CAE data that allows the user to visualize, manipulate, document, collaborate, compact, present and immerse with the 3D data in the form of CAx files without the need of its native applications.

Important modules/projects completed as part of VCollab development
1. Animator
2. Loaders (3D, 2D)
3. Exporters (3D, 2D)
4. Stereo (Anaglyph, Quad Buffer)
5. Explode (Directional, Assembly)
6. Manipulators (Camera, Object)
7. Multi-view (Window, View port)
8. Material Editor
9. Explorer (Parts, Assembly)
10. Hotspot
11. Views (Standard views, Cut section, Display modes, Reset, Fit, Full screen)
12. Overlaid (Legend, Notes)
13. Evaluation of Open Source Scene graph/Rendering APIs
14. Measurement
15. CAE Simulations
16. Collision Detection

PROJECT 2. BrailleWrite and Braille VK

Duration: 3 Months

Team Size: 1 Developer

Platform: Android 2.2/3.2.

Description: BrailleWrite is an intuitive input method (IME). The new way of interacting to the touch screen devices using the familiar Braille reading and writing system, without the need of any other physical device.

BrailleVK is a virtual keyboard for Braille system. Virtual keyboard along with leather key guide and audio, speech and vibration feedback enables visually challenged to input their needs into the touch screen devices.

Both the software interfaces have been designed and developed in android (Android 2.2/3.2) platforms and tested with users to access the usability for the improvement. Both helped in improving the accessibility of touch screen devices for visually challenged.

PROJECT 3. Web design and development for Economic, Design and PDP project.

Duration: 20 Months

Team Size: 1 Developer

Platform: Web, HTML, CSS, and JavaScript.

Description: Contents were gathered and generated along with students from the economics department. Wireframes, visual designs were approved and hosted the website at IITK server.

Maintenance and improvement of Design Programme website has assigned to me as part of TA.

To show case the progress of the project and improve the communication among team members in the project. The website was developed and updated regularly. It helped the team members and other stakeholders keep informed about the status of the project.

Personal Details

Date of Birth: 07th August 1981

Sex: Male

Marital Status: Married

Nationality: Indian

Language Known: English, Tamil

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