Abhishek Rakshit

Curriculum Vitae

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Intro

Over my career, I have been involved in multiple entrepreneurial and research-based projects. I currently manage a small and highly talented team of developers and digital experts. I am also working on a psychology-based free application to help users monitor and change negative behaviors using accountability partners.

Education

University of British Columbia (Okanagan) / Master in Arts, Digital Arts & Humanities

SEP 2022 - APR 2025, KELOWNA, BC, CANADA

Kansas State University / Master In Computer Science

AUG 2006 - MAY 2009, MANHATTAN, KS, USA

Bharati Vidyapeeth Deemed University / Bachelor In Computer Engineering

JUL 2002 - JUN 2006, PUNE, INDIA

Publications

A Host-Based Security Assessment Architecture for Industrial Control Systems

International Symposium on Resilient Control Systems (2009)

Computerized control systems perform vital functions across many critical infrastructures throughout the nation. These systems can be vulnerable to a variety of attacks leading to devastating consequences like loss of production, interruption in distribution of public utilities and most importantly endangering public safety. This calls for an approach to halt attacks in their tracks before being able to do any harm to these systems. Vulnerability assessment performed on these systems can identify and assess potential vulnerabilities in a control system network, before they are exploited by malicious intruders. Read More

Research Interest

Vacchan / Peer Supported Behaviour Monitoring and Improvement Application

MAY 2021 - PRESENT

The primary motive of this project is to assess the impact of easily accessible visualization and tracking tools and accountability partners for goal completion and long term behavioral changes. The practical applications of this research will

be to create an easy-to-use mobile application that allows the users to use the visual tools and accountability partners to modify their personal behavior leading to greater human wellbeing and personal happiness. Read More

Work Experience

Emvento Technologies / Co-Founder and CTO

NOV 2014 - PRESENT, NEW DELHI, INDIA

Emvento is a niche digital marketing and technology services organization. We help design and develop customized and highly effective digital assets. I oversee multiple departments including technology, sales, and finance. I manage multiple clients across North America, Europe, and Asia. Some of our projects are mentioned below

- BNI Payment System: Designed and developed a custom payment management and invoicing platform which helped the organization manage transactions above INR 20M without any issues. Platforms used were Linux Cloud Based Servers, MeteorJS, MongoDB
- Applix: Education platform to manage and handle thousands of student university applications built on the MeteorJS/ MongoDB platforms. The system allowed multiple users views with robust document management systems
- Search Engine Optimization: We are currently handling more than 20 niche US-based clients with their digital presence to make sure they are found by their clients in the most effective fashion. We are experts in multiple google technologies
- Oxhibit: An online exhibition hosting and management platform allowing Organizers, Exhibitors, and Visitors to conduct their business in the most efficient format. The platform was built on Google Firebase, BigQuery, and VueJS platforms, and the mobile app was built using the Flutter platform. The platform allowed live conferencing using the Agora WebRTC framework

Chakhlo / CTO

JAN 2015 - AUG 2015, NEW DELHI, INDIA

Director and CTO for an exotic online food delivery application that allows users to order traditional food items from different parts of the country.

- Built a complete online ordering and payment portal on the JS and PostgreSQL platform
- Designed and helped to implement the logistics and operations of picking up and delivering perishable and non-perishable items
- Setup vendor supply chain management to onboard new vendors to the platform

Netapp Inc. / Automation Engineer

AUG 2012 - SEP 2014, WALTHAM, MA, USA

Worked with the On-Command Insights team which provides valuable insights across your entire infrastructure to help you see more, react faster, and reduce costs in a single bound.

- Developed an automation framework using Groovy/Jenkins to run the complete test suite for each release of the product.
- Coordinated closely with the release team to make sure every new release
 was properly vetted with all the requisite benchmarks before being rolled
 on to the testing team.

 Created a Firefox plugin to automatically report console errors to the automation engine

Architexa Inc / Software Engineer

MAY 2009 - JUN 2012, CAMBRIDGE, MA, USA

Architexa is an MIT spin-off that develops software analysis tools for developers and teams to intuitively understand and document code and collaborate with UML-like diagrams. Projects include:

Rich Source Explorer (RSE): A Java-based development suite, which provides diagram-based visualization for large and complex codebases.

- Designed and engineered the Sequence diagram-based visualization for the suite.
- Implemented a Hibernate/JavaDB/Jetty-based On-Premise server embedded as an eclipse plug-in for our Enterprise clients.

Codemaps: A JAX-RS/JPA-based social networking site for developers to easily contribute and manage documentation for Open Source projects.

- Designed and implemented the cloud-based site to be deployed on Google App Engine (GAE) framework with Google Big Table as the backend.
- Improved site performance by cutting down adding page load time by 100% using JCache.

Project Management:

- Introduced Scrum methodology with bi-weekly Sprints improving performance and increase in on-time task completion by 70%
- Prioritizing team focus based on customer feedback and deciding on weekly team goals.

Kansas State University, Information and Security Group / Graduate Research Assistant

AUG 2007 - MAY 2009, MANHATTAN, KS, USA

As a member of the Information and Network Security Group I researched and developed tools to identify and proactively secure potential vulnerabilities in enterprise networks.

Worked on the Multihost, Multistage Vulnerability Analysis (MulVAL) project which is a logic-based network security analyzer.

- Designed and engineered a Host-Based Security Assessment architecture for Enterprise Networks
- Developed a Java-based XML to Datalog security definitions generator and a C/Perl based parser for the target machine

Sprint / Software Engineering Intern

MAY 2008 - AUG 2008, KANSAS CITY, KS, USA

Worked with the PPM (Project and Portfolio Management) group on the Customer Care Portal, an efficient reporting tool for the project, resource, and risk and issue management

- Implemented critical Java module to interface Customer Care portal with Intuit's Quickbase application
- Devised Functional and Business Requirements for the Customer Care application working in tandem with the Accenture team
- Participated in the Design phase of the project and wrote Functional and Business Requirements
- Developed future marketing strategies to increase customer base by more than 40% with the Business Operations (Finance) group using their market research on telecom competitors for the past fiscal year

Certifications

Mastering Innovation and Design - Thinking / MIT

JUN 2014, CAMBRIDGE, MA, USA

Thinking like a designer when approaching an engineering task is critical when leading a team. This certification helped me understand and implement a design-centric approach to create radically innovative solutions to the multiple projects I have been working on.

Masters Report

A Host-Based Security Assessment Architecture for Effective Leveraging of Shared Knowledge / Kansas State University

MAY 2009, MANHATTAN, KS, USA

Security scanning performed on computer systems is an important step to identify and assess potential vulnerabilities in an enterprise network before they are exploited by malicious intruders. An effective vulnerability assessment architecture should assimilate data from multiple security knowledge sources to discover all the security problems present on a host Read More