

## Debangsu Sengupta

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### Product Manager / Technical Program Manager

- M.S. In Computer Science with 1.5 yrs research experience. Graduation: Jan 2010
  - 4+ yrs of software engineering experience at Microsoft
  - Experience leading product initiatives, problem solving, mentoring.
  - Areas: Distributed Systems, Cloud Computing, Application Infrastructure / Frameworks, Security, Identity Management, Networks, Mobile / Social Computing.
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### Education

**Stanford University**, CA (2007-2009)

GPA: 3.5 / 4.0

Masters in Computer Science with Research.

#### Research:

- [PrPI](#) / [POMI](#) Project goal: Build a decentralized, open, social networking platform.

Coauthored:

- "[Architecture and Implementation of a Decentralized Social Networking Platform.](#)" Under review.
- "[Snap2Pass: Consumer-Friendly Challenge-Response Authentication with a Phone.](#)" Under review.

#### Projects: Distributed Systems

- **Publish-subscribe** middleware system for mobile applications. Features: high availability, eventual consistency, predictable latency using smart proxy, attribute-oriented interfaces, multicast, msg queues.
- **Replicated File System** using two-phased commit (2PC). \* Multi-player game.
- Seminar presentations: Cassandra, Chubby, VL2, Data De-duplication. Familiar with: MapReduce / Hadoop, ZooKeeper.
- Social Reviews Service: Combine and share public / private reviews with friends. Mentored undergraduate student towards successful completion of summer research goals. \* Personalized RSS Feeds.

#### Networking & Security

- Traffic shaper based on Sigma-Rho regulation using OpenFlow switches and API.
- **Authentication /Authorization:** Federated Identity Management: Developed an OpenID consumer/provider to enable single sign-on on Android phone. 2nd factor authentication (SMS). Facebook Connect prototype.
- Semantic Attribute-based **Access Control** \* Password manager \* SSL Man in the Middle attack \* Web Security XSS/XSRF attack / defense. \* Network security: Simple Intrusion Detection System (IDS).

#### Entrepreneurship

- Decorem: Business plan for a **consumer internet startup** integrating two vertical industries. Involved identifying market opportunities, value proposition, competitive analysis, initial financial projections, sales and marketing plans. Pitched idea to venture capitalist judges in business school class setting.
- **Rural IT Kiosks:** Business plan for enabling IT kiosks to achieve sustainability at the bottom of the economic pyramid in rural India. Work published by AED. Participated in Social E-Challenge and at Microsoft.
- **SeeYourImpact:** Helping **social entrepreneurship startup** in the micro-giving space.

#### Professional Experience

**Microsoft Corp.**, Redmond, WA (09 / 2003 – 09 / 2007)

Software Engineer, Office Communication Server (OCS), Data Protection Manager (DPM) V1

- **Designed and developed tools and infrastructure** for multiple components over multiple successful, on-time product releases in new markets.
- Led OCS team in product-wide **Security push**. Defined requirements, schedule of Security plan, tracked execution and helped achieve sign-off prior to release. Gained approval from management for proposed roadmap in the product cycle. \* Initiative recognized internally at Microsoft. \* Recognized to be in the top

15% of team. \* Developed tool to enable dumb and smart fuzzing of product components to improve quality.

- Helped organize **cross-group panel discussion** on design patterns. Introduced initiatives like fault injection, participated in Code Coverage analysis to improve product quality. Distributed development experience in collaborating with team members in India Dev Center.
- **Mentored** six teammates in various capacities to improve technical skills.
- Delivered a new user guide including best practices and sample code to train team members on systems and infrastructure. Reduced ramp-up time by 25%.
- **Interviewed** and made candidate recommendations for team positions in Redmond and India.

#### **Microsoft Corp., Redmond, WA (05 – 08 / 2002)**

Software Engineer Intern, MSN Core

- Designed a .NET application that validated functionality of integration components across MSN sites.

#### **EMC Corp., Southboro, MA (06 – 10 / 2001)**

Software Engineer Co-op, Clariion Software Engineering Tools

- Implemented web publishing system with load balancing and uniform access control features.
- Collaborated with engineers in remote sites to understand requirements. Wrote crash dump analysis tools.

#### **Education (continued)**

##### **University of Illinois at Urbana-Champaign, IL (01 – 05 / 2006)**

GPA: 4.0 / 4.0

- **Graduate Course:** Software Engineering II. Project: Dev lead on a location-based real-estate and job search web service. Managed six team members in several time zones in the US and South Korea.

##### **University of Massachusetts at Amherst, MA (09 / 1999 – 05 / 2003)**

GPA: 3.8 / 4.0

Bachelor of Science in Computer Science (Honors: Magna Cum Laude)

- **Undergraduate Honors Thesis.** Awarded **Honors Research Fellowship.**
- **Honors Projects:** Led a 4 member team in developing the audio interface of a racing game for the visually impaired. Business plan for distance learning. Developed web based question-answer system features.
- **Graduate Networking Labs:** Studied, configured and measured the internals of several network protocols using Cisco routers, switches and Linux machines.

#### **Skills**

- **Languages:** Java/C#/C/C++. **OS:** Windows, Linux, Mac OS X. **Tools:** SCM/Build tools e.g. SVN/MVN, Project management, Bug tracking tools. **Protocols:** ARP, RIP, OSPF, BGP, TCP/IP, UDP, DHCP, DNS, SIP.

#### **Affiliations**

- Stanford Association of Computing Machinery (ACM) Chapter, ACM Special Interest Group in mobile and wireless computing (SIGMOBILE), IEEE, IEEE Computer Society, Internet Society, Internet Technical Group.

#### **Honors**

- Stanford: Elected student-faculty liaison for the Computer Science department. 2008-2009.
- Microsoft Ship-It awards for multiple products. Top 15% of team. 2003 – 2007.
- Commonwealth College Scholar, Dean's List each semester enrolled. UMass. 1999 – 2003.  
\* Graduated Magna Cum Laude \* Departmental Honors \* Phi Beta Kappa \* Honors Research Fellowship.
- Ranked in top 150 by the National Science Talent Search Examination, India. 1996.
- **Thinkquest Internet Challenge Awards (1997- 2001):** Led numerous 3-member int'l school teams from 8 countries in developing highly popular, comprehensive, educational web sites that won top global prizes.