Dibyendu *"Dev"* Nath

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Software engineer with 8+ years of industry experience in backend infrastructure, distributed systems and low latency high throughput web services.

EXPERIENCE

Google LLC – Mountain View, CA   *Aug 2015 – Present*
Staff Software Engineer – Tech Lead / Manager (TLM)

– Leads and manages an engineering team, responsible for designing and scaling ads serving infrastructure for Google Shopping Ads, better known as Product Listing Ads (PLAs).

University of California, Santa Barbara – Santa Barbara, CA   *Sep 2013 – Jun 2015*
Research Assistant, RACE Lab – StochSS : Cloud-based Stochastic Simulation as a Service
Teaching Assistant – Data Structures & Algorithms, Foundations of CS, Python Programming

AppFolio Inc. – Goleta, CA   *Jun 2014 – Sep 2014*
Software Engineering Intern – RentMatch : Appfolio's Pricing Analytics (Data Science) team

McAfee Inc. – Bangalore, India   *Feb 2012 – Aug 2013*
Software Development Engineer – Endpoint Encryption for Files and Folders (EEFF) team

Indian Statistical Institute – Kolkata, India   *Jul 2010 – Jun 2011*
Research Intern, CV & PR Unit – Query Expansion Improvement in Terrier Search Engine

EDUCATION

University of California, Santa Barbara – Santa Barbara, CA   *Sep 2013 - Jun 2015*
Master of Science, Computer Science   *GPA: 3.92 / 4.0*

Advisors: Prof. Chandra Krintz, Prof. Rich Wolski

West Bengal University of Technology – Kolkata, India   *Aug 2007 - Jul 2011*
Bachelor of Technology, Computer Science & Engineering   *GPA: 8.74 / 10.0*

SKILLS

– Team and organizational leadership, project planning & management, vision and long-term strategy, executing.
– Building teams, growing & mentoring engineers, fostering a strong engineering culture.
– Distributed and parallel computing, performance optimization, streaming data pipelines.
– *Programming:* Extensive experience in C, C++, Java, Python. Proficient in JavaScript, SQL, shell scripts.
– *Protocols & Frameworks:* Protocol Buffers, Stubby/gRPC, HTTP, MapReduce/Flume/Hadoop.

SELECT PROJECTS

Google Shopping Serving Infrastructure – *Google LLC*   *Aug 2015 – present*

– Tech Lead / Manager (TLM) of engineering team for Google Ads Shopping infrastructure, involved in development of the serving stack and indexing pipeline for shopping ad results on google.com.
– Leading redesign of current stack to scale existing serving systems to meet XX

StochSS : Cloud-based Stochastic Simulation as a Service – *RACE Lab, UC Santa Barbara*   *Fall 2014 – Spring 2015*

– Built a generic cloud computing framework for configuring virtual machines and auto-deploying arbitrary scientific simulation programs in the cloud by wrapping the source code as a web service.
– Developed *Flex Cloud,* a lightweight cloud service abstraction layer for supporting simulation runs over different infrastructures (physical, virtual, as well as public or private clouds).

RentMatch : AppFolio's Pricing Analytics – *AppFolio Inc.*   *Summer 2014*

– Worked in AppFolio's Data Science team on finding *Rental Unit Similarity* using machine learning methods based on features like amenities, associated text, school districts, location, linked census data, etc.
– Designed and built **Super Squirrel**, a *MapReduce* like framework for collecting and processing data, distributed across AppFolio's data centers.

EEFF : Endpoint Encryption for Files and Folders – *McAfee Inc.* *Feb 2012 – Aug 2013*

– Worked on enterprise encryption product for Windows endpoints – contributed to client-side (including filter driver development) as well as server-side ePO management codebase.
– Developed **'Kill Pill'** Proof of Concept – remote deactivation and secure wiping of encrypted USB devices.

StockMood : Sentiment Analysis of StockTwits *Winter 2014*

– Developed a prediction model for Stock Market trends from sentiment analysis of **StockTwits,** a Twitter-like microblogging platform for stock market news, employing supervised machine learning methods.

PUBLICATIONS

Drawert, B., Hellander, A., Bales, B., Banerjee, D., Bellesia, G., Daigle Jr, B.J., Douglas, G., Gu, M., Gupta, A., Hellander, S., Horuk, C., Nath, D., et al 2016. **"Stochastic Simulation Service: Bridging the Gap between the Computational Expert and the Biologist."** PLOS Computational Biology, 12(12), p.e1005220.

D. Nath, S. Ray, S.K. Ghosh, **"Fingerprint Recognition System: Design & Implementation,"** Proceedings of International Conference on Scientific Paradigm Shift In Information Technology & Management, SPSITM'11, January, 2011.

AWARDS & HONORS

• Recipient of company-wide **Google Tech Impact Award** in 2023 and **Google Commerce Tech Impact Award** in 2022 for technical contributions & leadership.
• Ranked **585th** (**99.57 percentile**) out of about 130,000 students in *Computer Science,* in *Graduate Aptitude Test in Engineering, 2011* (Indian Graduate School Admission Exam for IITs/NITs etc).
• Recipient of **National Merit Scholarship** for securing **rank 49** in *State Secondary Examination, 2005* among about 700,000 students.