

# Rajat Singh

## Software Engineer

Philadelphia, PA - Email me on Indeed: [indeed.com/r/Rajat-Singh/eb797ce9355b773e](https://indeed.com/r/Rajat-Singh/eb797ce9355b773e)

### WORK EXPERIENCE

#### Software Engineer

FBS Inc - October 2012 to October 2013

Performed engineering product development and support activities for ultrasonic nondestructive testing equipment

- Maintained and developed new as well as legacy LabView based software that featured database management, data collection, signal processing, analysis and report generation, using GitHub for software version control
- Translated and migrated proprietary and legacy MATLAB written projects to LabView
- Gained tremendous proficiency in Labview and Object Oriented Programming
- Performed and assisted in field trials and product demonstrations as needed
- Evaluated potential software updates and provided feasibility and time estimates

#### Senior Design Project

Power Flow Studies - September 2011 to June 2012

Worked on a project to mitigate the increasing volatility of complex power system involving reliability and regulation of power supply by improving the computation speed of nonlinear power flow simulations

- Selected, programmed, implemented and tested Gauss Elimination algorithm by integrating it into Newton-Raphson algorithm on both CPU and GPU using C++ and nVIDIA's nFORCE 690 CUDA platforms respectively in a Linux Cluster
- Optimized the CUDA code to run 10 times faster than the C serial code by utilizing parallel programming paradigm
- Simulated steady state operation as well as contingency analysis of the solutions of the non-linear power flow equations

#### Investment Accountant - Co-op

BlackRock - Wilmington, DE - October 2010 to March 2011

Supported functions of BlackRock Solutions' Investment Accounting Group for all its client portfolios by preparing reports to determine performance using Microsoft Excel.

- Reconciled cash transactions of different Bank accounts under client portfolios including interest and general ledger stored in BlackRock's proprietary trading system
- Utilized Bloomberg software to observe and analyze market data, price quotes and research information pertaining to securities
- Trained and supervised offshore teams in India and local contract workers for all preliminary functions

#### Domain Manager - Co-op

JPMorgan Chase & Co - Wilmington, DE - September 2009 to March 2010

Managed Internet domain/url registrations, renewal and transfers for all JPMorgan Chase

- Communicated with JPMC line of business, daily, for all administrative domain/url matters
- Provided periodic metrics and quality assurance checks of the internal system consisting domain inventory
- Presented to management a proposal to enhance automations in the domain management's internal registration system

- Developed Excel VBA tools synchronized with Microsoft Internet Explorer to automate Domain Manager's periodic activities

### **Quantitative Consulting Analyst - Co-op**

Deloitte Tax LLP - Philadelphia, PA - September 2008 to March 2009

Developed Microsoft Excel and Access tools for tax calculation, applying tax laws using VBA and .NET

- Tested and approved prototype tax and auditing models in a team setting
- Designed charts and graphs of tax-implied data using Microsoft ProClarity and implemented it into a SharePoint interface
- Programmed user-friendly, modular graphical user interface for SQL-based production database to simplify data entry, storage and retrieval, suitable for management as well as workers

Drexel University Engineering Projects

### **Freshman Design Project**

Custom Away Message - Philadelphia, PA - September 2007 to June 2008

Proposed and designed an interactive, customizable and accessible cell phone voice-mail system

- Performed technical research and customer surveys to justify decisions in proposals and reports
- Collaborated with industry sources to achieve realistic final device specifications
- Compiled detailed feasibility report on the device and delivered an oral team presentation

## **EDUCATION**

### **Bachelor of Science in Computer Engineering**

Drexel University - Philadelphia, PA

June 2012

## **ADDITIONAL INFORMATION**

### **Technical Skills**

- Operating Systems: Unix, Linux, Windows, Mac OS, iOS, Android
- Software: Microsoft SQL Server, AutoCAD, Maple, Microsoft Access, Excel, ProClarity, Share Point, Bloomberg, Git
- Languages: Python, Perl, C/C++, C#, .NET, CUDA, Java, LabView, SQL, VBA, XML, HTML, CSS, JavaScript, PHP