Senior Application Developer (C/C++, Python, Golang) Senior Application Developer (C/C++, Python, Golang) Senior Application Developer (C/C++, Python, Golang) East Hanover, NJ Accomplished financial professional with strong knowledge in Fixed Income and specializing in structure products. Strong knowledge in fixed income capital markets, portfolio management and quantitative finance. Strong analytical and problem solving skills. Over 20 years of hands-on application design and programming in C/C++, Python, Golang and SQL ?Application Development ? Model Development ? Blockchain Technology ? Data Management ? IT Management ? Risk Management ? Portfolio Analysis ? Asset Management ? Equity Trading Work Experience Senior Application Developer (C/C++, Python, Golang) DataSoft Inc - Secaucus, NJ July 2017 to September 2018 Developed TradeBlazer fixed income trading, clearance and settlement system. Implemented DBI/Postgres database version and deployed in AWS cloud. Upgraded C/C++ and ProC 32 bits application to 64 bits window and Linux system. Initiated Block Chain for security clearing and settlement. Director of Finance Formosa Plastics (USA) - Livingston, NJ October 2012 to March 2017 Oversee the strategic planning, data analytics, performance metrics tracking and financial analysis for business unit of 2000 staff totaling $10B at four locations (NJ, TX, DE and LA). Conduct quarterly financial variance analysis to identify major discrepancies between budget and actuals. Investigate root clauses and implement corrective actions to achieve annual operating and strategic goals. Oversee a 10 billion firm's revenue and expenses, cash flow, short/long term investment, auditing, and budgeting. Responsible for optimizing performance of AR and cash flow by mitigating risk, establishing credit decision making guidelines, supporting sales management by providing credit solutions to effectively support sales and financial goals. Communicate cross departments and executives during the project lifecycle. Responsible for property and casualty insurance policies to cover the corporate and plants risk exposures. Designed API for credit analysis using Python. MBS Director - Quantitative Developer/Project Lead TD Securities (USA) - New York, NY March 2010 to August 2012 Designed, developed and implemented new MBS pricer and risk management system needed for TD Securities, verify systems solutions by creating test plans and scripts and conducting unit and integration testing in conjunction with traders using QA

processes written in C++, Python, and VBA. Initiated MBS trading business and infrastructure. Lead research and IT team to build MBS risk management with parallel distribution computing. Managed and coordinated all aspects of SDLC with QA, MRC, GMO, PMO and IT (written in C/C++ and Python). Developed fixed rate prepayment model and interest rate (Monte-Carlo) model in C/C++ and gained approval by TD. Managed, designed and developed the data flow and trade flow from front office to middle office to back office. Developed MBS VaR methodology, risk report and PnL attribution report. Evaluated vendor's (AFT) prepayment model and back testing for OCC.

Defined and improved the risk measure of TD bank portfolio. Portfolio Manager Upright Financial Corporation - Livingston, NJ December 2008 to February 2010 Managed mutual funds and client's assets, which outperforms the broad market more than 25% (52.58% vs 26.96 SP Index) in year 2009. Placed trades, managed book, post-trade processing orders and auditing reports. JPMorgan Chase - New York, NY March 1992 to May 2008 VP (Quantitative developer 2000 Proprietary Trading 2008 to 2008 Built the MBS risk application, scenario analysis, VaR calculation, p&L attribution report for various trading desks. Supported the front office MBS traders and risk managers to price positions and run risk scenario analysis using proprietary analytics engine written in C/C++, Python, SAS, Plus, and VBA. Led pension advisory group to build a fixed-income risk management system written in C/C++ for a global asset/liability management across a wide client base and broad product range. Overall responsibility for the system and software development life-cycle initiation, planning, implementation, execution and closure. Developed a loan level prepayment and default model written in C/C++ and SAS that employs historical data from Loan Performance for ABS-HEL (subprime mortgages) trading desk. Also, simulate housing price appreciation to price single loan, ABX and TABX. The result helped desk generating 200+ million profits in 2007. Traded an equity index futures long/short statistical arbitrage book. Developed a CMBS three state variables property value tree and a Monte-Carlo simulation to price each tranche within a deal and evaluate extension risk after balloon date written in C/C++. Implemented two factors Vasicek/Black Monte-Carlo Normal Model and developed an innovative approach combing Sobol Sequence and Brownian Bridge to optimize the performance of MBS Monte-Carlo simulation

engine using only a limited number of paths. Developed an in-house agency MBS prepayment model written in C++. Sped up overnight batch process ensure the risk management report and P&L explanatory report generated on time and save a million dollars in hardware expenses. VP (Financial Analyst/Quantitative developer Derivative Research 1996 to 2000 Designed and developed all agency prepayment models and RMBS OAS model using C/C++, Splus, and VBA. Developed a mortgage derivatives pricing model and OAS model to support prepayment-link derivative, Fixed-Income MBS pass through and proprietary trading desks (written in C++). Developed an ARM II classic swap model using trinomial tree, three-group ARM prepayment model and multi-group Fixed Rate MBS prepayment model (written in C++ and VBA) Implemented Fixed Income risk management system and integrated to major JPMorgan proprietary trading system Primus, Kapital and Aladdin for Linux and Window. VP (Financial Analyst/Application developer Fixed Income Research 1992 to 1996 Developed a full project lifecycle (initiation, analysis, development, integration, deployment, test, UAT and production launch) of core fixed income analytic functions including bond math, rate, date, P&L attribution and risk with a high degree of cross-platform interoperability, a dependable test harness and a powerful API written in C/C++. Developed a defeasance and multiple-fund defeasance models and generated million dollars profit on most of deal we bid among Wall Street firms (written in C++ and Excel).. Developed trading strategies for specific objectives and recommended alternative strategies for archiving portfolio maximize return and minimize risk goal. Developed a two-factor Monte-Carlo simulation 10 years CMT yield and spot rate term structure. Strip regression trade recommendation and US treasury/strip spread analysis and risk management model supporting for government/strip trading desks. Support public finance department to analyze and execute Escrow fund. Developed a long data bond option model using BDT approach (written in C). Education M.S. in Computer Science in Computer Science NEW JERSEY INSTITUTE OF TECHNOLOGY - Newark, NJ

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