Rajdeep Bandopadhyay

Software Engineer

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Technically sophisticated professional with hands-on experience in all facet of planning, designing, and implementing software development processes, data center infrastructure, service management, and end-user services. Adept at motivating staff by establishing vision, designing action plans, and aligning resources to effectively respond to organizational needs. Adept at creating synergies enabling business growth through accelerated throughput, reduced product lead times, and increased capacity. Consistently recognized improve organizational efficiency with expertise in strategy, analysis, data extraction, manipulation, reporting, and business process improvement.

Education

Bachelors of Science (BSc) in Computer Science GPA: 3.6
University of Cincinnati, College of Engineering and Applied Science

Areas Of Expertise

Risk Mitigation
Architecture Modeling
Product Development
Stakeholder Management
Budgeting & Cost Reduction
Server Optimization
Algorithmic Trading
Project Management
Functional Requirement
Scripting & Documentation
Testing Automation
Defect Tracking

Languages

Fluent in English, Bengali, Hindi
Basic in Sanskrit, Punjabi

Technical Proficiencies

Languages:	C, C++, Python, MATLAB, Visual Basic Script, Rust, YANG, MIPS (Assembly Language), BoUML, MAKEFILE, Jenkins (S&D), **PineS**
Tools:	JIRA Bug-Tracking, Git, Sysrepo/netopeer2, TensorFlow, Scikit-learn, Linux systems, Xilinx Firmware, C++ GUI (OpenGL, ImGUI, DirectX) | Industry Knowledge: *Penetration Testing, Deep Learning, Encryption, IPC Frameworks, FPGA, NETCONF, DAS-UBOOT, Jenkins Job Pipelines,* ***TradingView (pinescript)***
Operating Systems:	Linux, macOS, Raspbian OS, Unix

Career Experience

University of Cincinnati | Remote (OH) **2021 – Present**
Research Assistant

Design GUI with C++ frameworks such as Qt, ImGUI, OpenGL, and DirectX, providing an interface for the driver to record data collected for detecting shoulder drop-off on any given GPS location while the car driving at an average of 50 MPH. Author IPC framework modules and custom driver modules for LIDAR, GPS, and Camera in C/C++.

- Maintained quality controls standards to preserve integrity of data and findings
- Planed and modified research techniques, procedures, tests, equipment, and software management.
- Wrote and edited materials for publication and presentation.

Infinera | Sunnyvale CA **2019 – 2021**
Firmware Engineer, 2021

Developed and implemented software for industry-specific applications and systems. Prepared reports on project status, issues, and risks for management.

- Designed debug tools and features such as Thread Names for each process within DVT project, Auto-config capabilities for MAKEFILE, and MAKEFILE dependencies restructuring, which resulted in 25% faster compilation.
- Improved Jenkins regression tasks for a more efficient and future-proof along with added features like NXP integration, through declarative programming
- Identified and swiftly fixed bugs and provided clarifications related to YANG and NETCONF RFCs.
- Conducted design and code reviews and recommended improvements.
- Developed firmware algorithms to handle exceptional conditions and errors.

R&D Product Engineer, *2020*

Designed data reporting modules for Performance Monitors used on Line Side Firmware Drivers (PIC Module), utilizing control loops for power balancing the optical amplifiers such as EDFA (Erbium-Doped Fiber Amplifier).

- Increased the upgrade process by 30% through optimization of the Upgrade Manager application.
- Mitigated misreporting and delays through revamping existing SDK and DCO daemon inter-process communication.
- Improved monthly releases process by recommending more efficient changes for over five Pull Requests every week.
- Executed Image Downloading Authentication modules to secure and reliable over-the-air upgrades.
- Enhanced data-store reporting mechanism by suggesting and integrating new YANG Data Models.

Firmware Engineer, 2019

Designed and rolled out a NETCONF application to conduct performance tests on YANG Models. Supported the DVT team to meet release deadlines by identified and resolving bugs and integration issues.

- Designed and delivered ECDSA encryption module for safe booting and upgrading.
- Created and deployed required firmware modules for FPGA used in certain interdependent projects within DCO.

Additional Experience

TradingView, Remote (OH) **2017 – Present**

Algo-Trader

Manage over $35K and plus leverage of 1X to sustain portfolio growth regardless of market directions using options contract. Create indicators and strategies using pine script and trading view for personal portfolio management.

- Researched and developed effective methods to maintain low-delta state of current best strategy (83% WR, beating the market in time-frames from 5 min to Daily; with 23% Max Draw-down.
- Developed and implemented efficient strategies to get a market-beating strategy on weekly and monthly time-frame to truly automate long-term trading.
- Currently working on ensemble and automorphism to make the algorithm more general and abstracted, current model historical backtest statistics below (references available upon request, and encouraged!):
    - Mega-cap tech-sector (AAPL, MSFT, NFLX etc): Market beating by 1.5X - 2.3X factor on 45MIN, 4HR and, Weekly
        - 1.5X of buy and hold (historically) with lower Max Draw-down, healthy Sharpe and Profit Percentage
    - Sector Indexes (IYR, SPX etc): Close t Buy and Hold with extremely minimal Max Draw-down