

PRATHIK ANAND KRISHNAN

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@ My Portfolio

PERSONAL SUMMARY

Skilled Software Developer with **over 3.5 years** of experience in **Modern C++ and Python**. I thrive in Agile environments, consistently delivering scalable software with strong ownership from concept to deployment. **Driven to expand expertise in building high-performance systems and practical design patterns.**

EXPERIENCE

Software Developer - G3 @ ARUP – Hyderabad, India 09/2022 – Present

- Developed **backend features for an MFC application in C++**, implementing custom UI enhancements and resolving **60+ JIRA tickets**.
- Implemented **parallelization** in the application to leverage maximum CPU cores in computing results using **OpenMP's API**.
- Improved UI responsiveness by offloading resource-heavy operations to a separate **std::thread**, while using **mutexes** to preserve data integrity and thread safety.
- Applied Test-Driven Development (TDD) with Catch2 and Google Test frameworks, **achieving 96% code coverage**.
- Currently developing a **C++ static library Adapter Layer** by using **Factory Design Pattern**, deployed internally as a **NuGet** package to enable seamless integration between two proprietary applications.
- Collaborating with a **global team spread across 4 different time-zones** and ensuring timely delivery of objectives.

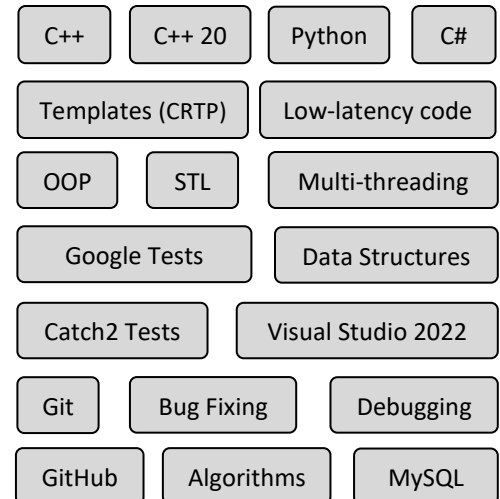
Assistant Engineer @ ATKINS – Bangalore, India 01/2020 – 08/2022

- Developed a **Python GUI application** using functional programming to design, and analyze structural analysis results, achieving a 70% adoption rate.

PROJECTS

- [Order Execution & Management System to trade on Deribit using C++17](#)**: It's a **High-performance application** for low-latency interaction with the Deribit test platform, offering **REST API** access to all the crypto symbols and a **WebSocket server** for client subscriptions.
- [VanillaVision - Twin Pricing Engine](#)**: Implemented **lock-free C++ data structure** for pricing engine to do direct comparison between **analytical and simulation results**.
- [ConcurrentCandle - Trading Orderbook Simulation Suite](#)**: Leverages the power of multi-threading to process orders in parallel to **mimic real-time trading activity**.
- [Black-Scholes Option Pricing Model Web App](#)**: Built with **Python** using NumPy, Streamlit, Matplotlib libraries to display **interactive Call and Put option heatmaps**.
- [Babylon.js 2D Shape Extrusion and Manipulation](#)**: Web-app that lets users draw 2D shapes, extrude them to 3D, and manipulate them by moving or editing vertices.
- [My personal portfolio React Web App](#)**: Hosted on GitHub Pages, **leverages continuous CI/CD through GitHub Actions**.

TECHNICAL SKILLS



CERTIFICATES

- [Mastering critical C++17 skills](#)
- [Harvard CS50 - Free Computer Science University Course](#)
- [Programming with JavaScript](#)
- [Advanced React Concepts](#)

EDUCATION

Master of Engg., Structural Engineering

BITS Pilani, Hyderabad, India

08/2018 – 08/2020

LANGUAGES

English: ██████████

Hindi: ██████████

Tamil: ██████████

SOFT SKILLS

Problem Solving, Continuous Learning, Adaptability, Communication, Flexibility, Collaboration & Teamwork