Abdul Khurram

+1 (236) 865-4820 | rafay@abdulkhurram.com | linkedin.com/in/abdulkhurram | github.com/arkb75

EDUCATION & AWARDS

University of British Columbia — Vancouver, BC, Canada
Bachelor of Science in Computer Science (Expected Graduation: May 2027)

Euclid Mathematics Contest, University of Waterloo — 2021
Top 5% Internationally, Certificate of Distinction

EXPERIENCE

Software Engineer Intern | *TypeScript/Node.js, AWS, Playwright, OpenAI* — Jan. 2025 – Present
Otto Optical Systems (Contello.ai) — *Toronto, ON, Canada*
- Built real-time **ETL** pipelines on **AWS (SQS/S3)** with TypeScript/**Next.js** + **Node** dashboards; owned design→deploy→diagnostics/**DevOps** (**CloudWatch**) at **thousands/day** scale.
- Accelerated content prep by ingesting brand docs with an **NLP** step, caching embeddings, and auto-injecting channel-specific context while enforcing **API guardrails**.
- Expanded coverage across major platforms with a **distributed async pipeline**; added stream-based analytics, audit logs, and resilient Canva export automation.
- Raised scheduler reliability to **99.9%** by moving generation to **OpenAI Responses API**, integrating **Playwright E2E** gates into **CI/CD**, hardening auth/session, and adding **retry/backoff** plus **CloudWatch alerting**.

Software Developer & Team Lead | *Unreal Engine, C++, Python* — Sept. – Dec. 2024
UBC Emerging Media Lab — *Vancouver, BC, Canada*
- Led an **AI-powered** VR platform in **Unreal (C++)** with interactive UI **state machines** for clinical scenarios.
- Increased stability with a **multithreaded supervisory layer** (**C++/Python**) that monitors the AI patient and auto-corrects off-protocol replies.
- Delivered a functional prototype in two weeks, securing project funding.
- Cut backend costs by **90%** via system optimizations, improving real-time performance by **40%**.

Software Engineer Intern | *Vue.js, Java, Jenkins, Docker* — May – Aug. 2023
Faaz Consulting — *Mclean, VA, USA*
- Improved UI responsiveness by **30%** and redesigned key workflows in Vue.js, delivering a smoother user experience
- Automated **CI/CD** deployment processes with **Jenkins** and **Docker**, reducing deployment times by 20%.
- Enhanced legacy systems and delivered software updates under strict deadlines.

PROJECTS

SoloPilot | *Python, TypeScript/Next.js, AWS, LangChain* — **Personal Project**
- Building a client-to-codebase bridge for solo freelancers that unifies client intake, planning, proposals, and delivery in one workspace.
- Shipped an email intake console that triages threads, captures scope, and renders versioned proposal PDFs with freeform annotations via a **Vision Model** that captures and translates intent for precise edits.
- Built a **Python** evaluator→revisor **agent** loop with rubric-based **benchmarking** (score + revision), improving response quality via measured iterations.
- Exports approved proposals as structured **PRDs** optimized for AI IDEs (**Antigravity**, **Cursor**, **VS Code**); provider-agnostic **LLM** layer; **CI** gates; **AWS** ops (**Bedrock**, S3 versioning, CloudWatch).

Amazon Marketplace Analytic Software | *Java, Python, Facebook Prophet, SQL/JSON* — **Academic Project**
- Engineered an Amazon Marketplace analytics tool, enhancing seller operational efficiency by **35%**.
- Built **ML demand forecasting** with **Facebook Prophet** time-series models, delivering 30-day sales projections with **80% confidence intervals** and reducing overstock by **50%**.
- Designed a **Python microservice** + **Java client** architecture with REST APIs for real-time forecast retrieval.

Entropy Comparison in Random Generators | *Java, C++, Swift* — **Research Project**
- Conducted an analysis comparing entropy levels of TRNGs vs. PRNGs for cryptographic security applications.
- Developed and executed tests in **Java**, **C++**, and **Swift**, benchmarking entropy quality and generation speed.

TECHNICAL SKILLS

Languages: TypeScript/JavaScript, Java, Python, SQL, C/C++, Swift, HTML/CSS, React Native
Platforms & Tools: Next.js, Node.js/Express, Playwright; AWS (Amplify, Lambda, DynamoDB, S3, SQS, CloudWatch); OpenAI API; Meta/LinkedIn/X/Canva APIs; Git, Docker, Yarn, Tailwind CSS, RDBMS