AVIRAL GARG

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EDUCATION

University of British Columbia   **September 2015 - May 2019**
Bachelor's, Software Engineering

PROFESSIONAL EXPERIENCE

Amazon   **Vancouver, BC, Canada**
Software Development Engineer - AI/ML   *February 2021 - March 2025*
- AI/ML (Project Lead): Architected serverless AWS SageMaker pipelines that processed 40+ TB of data daily and cut execution time by 50%.
- Cross-Discipline Collaboration: Mentored 2 ML engineers and 1 ML researcher to scale distributed training and inference workloads.
- Deep Learning Models: Built demandforecasting ML models, boosting prediction accuracy by 25% and reducing overstock costs by 15%.
- Synthetic Data Techniques: Augmented time-series datasets with synthetic data to improve demand-forecasting accuracy by 8%.
- Hackathon Achievement: Led a fourperson team to win first place at Amazon 2022 Hackathon with an AR iOS makeuptutorial app.

Amazon   **Vancouver, BC, Canada**
Software Development Engineer   *June 2020 - February 2021*
- Performance Optimization: Enhanced API efficiency, reducing page load time impact by 50% and increasing checkout rates by 2.5%.
- Infrastructure Enhancement: Optimized AWS ECS setup with automated performance, stress, and load testing suites for improved reliability.
- Cost Reduction: Achieved $30,000 in annual savings through strategic cost optimizations and establishing enhanced AWS usage procedures.
- Operational Excellence: Streamlined and automated team pipelines, reducing developer hours by 12 weekly and increasing deployments.
- Tool Implementation: Integrated Amazon CodeGuru Profiler, providing a template to streamline performance profiling for all projects.
- Monitoring & Alerting: Deployed detailed dashboards and alerting systems for real-time service health monitoring and issue resolution.

T4G Limited   **Vancouver, BC, Canada**
AI Software Engineer   *October 2018 - December 2019*
- NLP Chatbot Development: Secured a $100K contract by successfully delivering a Named-Entity Recognition chatbot proof-of-concept.
- Business Growth: Improved promo code generation efficiency by 40%, paving the way for 4 additional new contracts in the same domain.
- Chatbot Implementation: Developed chatbots using Node.js and Python in Azure, integrating text & speech analysis with CosmosDB and SQL.
- Automation Scripts: Automated the extraction of 10 years of version history from 15+ applications, saving 7 dev hr/week with Python scripts.
- Application Development: Developed and maintained C# desktop applications and SSIS packages, affecting over 50 million users globally.

Texavie Technologies Inc.   **Vancouver, BC, Canada**
Software Engineer Intern - VR/AR   *December 2017 - May 2018*
- App Development: Designed and implemented mobile, computer, MR headset apps in Unity Game Engine for prototype demonstrations.
- Development Tools: Reduced prototype calibration time by 60% by developing a debugger crucial to the company's development strategies.
- Customer Growth: Increased target customer base by 100% by creating cross-platform game pipelines for Windows, macOS, and Linux.

Tech Mahindra   **Vancouver, BC, Canada**
Software Engineer Intern   *May 2014 - August 2014*

- Data Migration: Migrated 25% of GIS spatial data impacting four cities in British Columbia by automating CAD tasks with Python scripts.
- Testing Improvements: Improved test coverage from 65% to 100% for Python scripts testing critical geo-spatial data accuracy.
- Automation Standards: Established automated testing guidelines and built high-coverage, fully automated test suites for all client projects.

SKILLS

Skills: Python, C#, Java, Kotlin, JavaScript, Pytorch, Tensorflow, Microsoft Azure, AWS, Google Cloud Platform, Microservices, Docker, CloudFormation, Natural Language Processing (NLP), LLM, Node.js, SQL