

# EMMANUEL ARTHUR



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## SKILLS

**Core CS Fundamentals:** Algorithms & Data Structures, Operating Systems, Networking

**Languages:** Python, C/C++, Javascript, Java, Bash

**Frameworks & Libraries:** Bootstrap, Python unittest

**Systems/Infrastructure:** Linux, Networking, Operating Systems, Systems Administration

**Development & Automation Tools:** ServiceNow, Blue Prism, JIRA, SonarQube

**Databases & Querying:** MySQL, SQL

**Cloud & DevOps :** Git, Azure DevOps, Kubernetes, Docker

**AI & Development Tools:** GitHub Copilot, Microsoft Copilot, ChatGPT, OpenAI APIs, Claude, Prompt Engineering, Data Processing for Machine Learning

## EDUCATION

**Portland State University** - Master of Science - Computer Science

**Portland, OR** 2025-2027

**Reed College** - Bachelor's of Arts - Computer Science

**Portland, OR** 2018-2022

## EXPERIENCE

**Blackrock- Analyst, Aladdin Engineering, Observability**

**Wilmington, DE** May 2024 - July 2025

- **ServiceNow AI Inventory (January 2025 - March 2025):** Partnered with compliance and AI teams to architect a ServiceNow-based AI inventory system with custom data models and import automation. Leveraged Agile boards to manage tasks, tested client scripts/UI Policies, and deployed iteratively in sync with ServiceNow SDLC workflows. Now all data inventory for AI business applications within the company are stored and managed within this system.
- **Filename Encoder App (August 2024-September 2024):** Co-developed a production-grade Python tool with Private Markets engineers to URL-encode filenames for secure internal file transfers; followed Agile sprints, wrote unit tests, and deployed via CI/CD pipelines. This allowed private markets team members to easily access market data without the bottleneck of incorrect filename formats.
- **CPAdmin Page Enhancement (September 2024-December 2024):** Worked cross-functionally with platform and frontend teams to redesign CPAdmin using JSBootstrap and Java; enabled configuration edits for Kubernetes assignments in Aladdin apps. Integrated unit tests across frontend and backend logic, aligning with SDLC checkpoints in Agile sprints. This enabled all developers throughout the company to configure data for running applications and scripts on servers deployed on Kubernetes.
- **CUSIP Fund Retriever (June 2024-August 2024):** Built a Python + SQL reporting tool during onboarding to retrieve CUSIP fund data and auto-distribute reports via email. Collaborated with mentors for feedback, applied script-level unit testing, and completed the full SDLC cycle from requirement to deployment in a Aladdin Developer training environment.

**Blackrock- Analyst, Technology Support (May 2023-May 2024)** **Wilmington, DE** May 2023 - April 2024

- Performed troubleshooting for various software and hardware issues across internal teams for better user experience for all employees in the firm

## PROJECTS

**Business Impact Simulator application**

**Ongoing, multi-phase project**

- Building an AI-powered application that first classifies a project into the appropriate industry area(s) based on its descriptions, papers, and documents, then uses analytical and intelligence-based tools to generate both textual and graphical narratives of the project's impact on real or hypothetical companies, including long-term, industry-level effects. The current version of this project is available on GitHub under the name "Business Impact Simulator."

**Retail Impact Simulator - Cloud-Based Application**

**Completed: December 2025**

- Developed a scalable cloud-native application deployed on Google Cloud Run using microservices architecture with Docker containerization and REST API integrations. Built backend server with API-first design principles that coordinates specialized analysis agents gathering data from multiple external APIs. Implemented SQL queries for data analysis and deployed containerized microservices managing API authentication and HTTP-based service communication. Demonstrates experience with cloud-native patterns,

microservices architecture, API integrations, and scalable application design relevant to enterprise modernization and domain transformation.