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## SKILLS

- **Languages:** Python, Go, Javascript, Typescript, Java, MySQL, PostgreSQL, C
- **Frameworks:** Next.js, React.js, Node.js, Express.js, Angular.js, Flask, Cypress, TailwindCSS,
- **Tools:** Git, Docker, Kubernetes, Kafka, Skupper, Prometheus, Thanos, Grafana, Instana, LogDNA, Redis, Neo4J
- **Cloud Services:** EC2, S3, Lambda, SageMaker, Firebase, Compute Engine, Cloud Run, BigQuery, PromQL, OpenShift K8
- **Certifications:** [IBM Kubernetes/OpenShift Essentials](#) | [IBM Blockchain Essentials](#) | [IBM Developer Jumpstart](#) | [IBM Design Thinking](#)

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## WORK EXPERIENCE

**IBM** *Aug 2023 - Current*  
Software Engineer Research Triangle Park, NC  
[Hybrid Cloud Mesh Team](#)

- Built **observability solutions** for **Hybrid Cloud Mesh**, integrating **Prometheus** and **Thanos** for seamless metric ingestion with long-term cloud object storage, enabling real-time insights across multi-cloud environments via **Skupper**.
- Resolved high-severity production **memory issues** in **Thanos**, optimizing **high-cardinality metric processing** to cut memory usage by over **50%** and prevent disk overloads, improving system uptime and scalability under high traffic.
- Refactored **core data models** for Observability microservice(s), into high-performance **cache framework**, reducing data retrieval latency times by **30%** and improving system throughput, enabling quicker, more resilient enrichment of time-series data.
- Implemented **on-demand cache synchronization** with **mesh resource-managers**, increasing metric accuracy drastically by reducing reliance on stale Kafka events and adding real-time checks to ensure only valid Prometheus metrics are processed
- Improved code coverage of **all observability microservices** to **80%** and wrote end-to-end tests for durability and integration testing, ensuring robust and reliable performance before general availability (GA) release.

**IBM** *May 2022 - Sep 2022*  
Software Engineer Intern Remote  
[Cloud Expert Labs Team](#)

- Developed branded login pages from scratch using **Typescript**, **Next.js**, **Express.js**, **Node.js**, and **Passport.js**, providing seamless user authentication and integration with IBM Cloud services, fully adhering to IBM Carbon Design guidelines.
- Implemented secure **REST APIs** with Express, enabling robust user authentication flows, including **password resets**, **email notifications**, **multi-factor authentication**, adhering and enhancing to system security standards
- Automated retailer onboarding, cutting tedious information-filling tasks from **1 hour to 15 minutes** using Python scripts, streamlining data management and improving onboarding efficiency by over **50%**.
- **Improved product reliability** by integrating **Cypress E2E tests** into the **CI/CD pipeline**, reducing deployment bugs and ensuring seamless delivery.

**Leidos** *June 2021 - Dec 2021*  
Software Engineer Intern Reston, VA  
[Annex Intelligence Division](#)

- **Collaborated with the Annex Intelligence team** to design, develop, and deploy **web and mobile applications** for the **US NCTC**, supporting critical counter-terrorism initiatives by enhancing operational capabilities and data accessibility.
- **Developed key features for web portals** using **Vue.js**, **Node.js**, **ElasticSearch**, and **AWS S3**, improving data processing efficiency and enhancing the user experience for intelligence analysts.
- **Streamlined development workflows** by leveraging tools like **Docker**, **GitLab**, **SonarQube**, and **Postman**, optimizing CI/CD pipelines and ensuring the delivery of high-quality software.
- **Led cross-functional integration efforts**, coordinating with various teams to ensure seamless application deployment, resulting in improved operational efficiency for national security efforts.

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## RECENT PROJECTS

**YTRecap** [Github](#) *March 2023*  
[YTRecap.org](#) is a web app built using Python Flask that can summarize any YouTube video by parsing the video for its closed captions and passing them to an NLP large language model

**GradeMyAid** [Github](#) *December 2022*  
[GradeMyAid.com](#) is a financial aid tool built using Next.js and the [CollegeScorecardAPI](#) that offers the ability to compare financial aid packages from varying universities to understand which FAFSA offers are the most appealing

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## EDUCATION

**University of Pittsburgh** *May 2023*  
**Bachelor of Computer Science** Pittsburgh, PA  
**Coursework:** Algorithmic Implementation, Data Structures, Discrete Structures, Assembly Language, Intermediate Programming, Computer Organization, Software Engineering, Web-Development, Artificial Intelligence, Systems Software, Formal Methods in Computing, Operating System, Database Management Systems, Quality Assurance, Big Ideas in Computing  
**Honors:** Cum Laude