Nicholas Tillmann
ntillmann1439@gmail.com   **Portfolio | Github | Linkedin**

SKILLS

- **Languages:** Python, Javascript, Typescript, Java, Go, PostgreSQL
- **Frameworks:** Next.js, React.js, Node.js, Express.js, Angular.js, Flask, Cypress, TailwindCSS,
- **Tools:** Git, Jira, SonarQube, Docker, K8s, Kafka, Prometheus, Thanos, Redis, Neo4J
- **Services**: AWS, GCP, IBM Cloud, SageMaker, S3, EC2, OAuth2.0, Firebase, Supabase, Vercel, Heroku, Zeet,
- **Certifications:** IBM Enterprise Design Thinking Practioner | IBM Blockchain Essentials

WORK EXPERIENCE

IBM   *Aug 2023 - Current*
Software Engineer   *Research Triangle Park, NC*
Hybrid Cloud Mesh Team
- Develop metric related microservices ("observability components") for **IBMs Hybrid Cloud Mesh**, a multi-cloud networking **SaaS** application enabling the linking of cloud services across organizations.
- Mainly focused on **advanced metric monitoring** to optimize cloud integration and performance.
  Led the implementation and maintenance of **high availability protocols** for the observaility micro-services on **OpenShift**
- Managed **metric-enrichment** of **Prometheus** instances by adding metadata to scraped instances and storing them in **Thanos**
- Collaborated closely with developers of the topology microservice, focusing on delineating edge connections and relationships between nodes in network graphs using **Grafana**
- Revised code coverage of both **observability** and **topology** microservices from **45% → 85%** by adding integration/E2E tests
- Streamlined **Travis CI/CD** integration for newly developed microservices, focusing on monitoring metric-data and analyzing topology-edge connections, elevating quality and error fault handling of development processes

IBM   *May 2022 - Sep 2022*
Software Engineer Intern   *RTP, NC (Remote)*
Cloud Expert Labs Team
- Developed branded login pages from scratch using **Typescript**, **Next**.js, **Express**.js, **Node**.js, and **Passport**.js; seamlessly integrated with IBM Cloud services while also adhering with strict design guidelines provided by IBM Carbon Design
- Implemented secure **REST API** with **Express** and **IBM Cloud**, handling user authentication, login, password reset, email notifications, and multi-factor authentication in addition to a IBM branded user interface
- Streamlined retailer onboarding and data management tasks by **60%** through Python scripts
- Improved product reliability by integrating comprehensive **Cypress E2E** tests into the **CI/CD** pipeline

Leidos   *June 2021 - Dec 2021*
Software Engineer Intern   *Reston, VA*
Annex Intelligence Division
- Collaborated with the **Annex Intelligence** team on the design, development, and deployment of web and mobile applications for the **US NCTC**, contributing to the successful implementation of counter-terrorism initiatives
- Played a key role in developing features and functionalities for web portals primarily using **Vue**.js, **Node**.js, **Elastic Search** and **S3** services resulting in an improved user experience and more efficient data processing
- Demonstrated proficiency in working with a diverse set of tools including but not limited too **JIRA**, **Docker**, **GitLab**, **SonarQube**, **Git**, **Postman**, **MySQL**, **Tomcat**, **AWS**, and **Linux** (Ubuntu)

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 it's 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 a to compare financial aid packages from varying universities in order to understand which FAFSA offers are the most appealing

EDUCATION

University of Pittsburgh   *May 2023*
Bachelors 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, Applied Statistics, Operating System, Database Management Systems, Quality Assurance, Big Ideas in Computing*
Honors: Cum Laude