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Skills

- **Languages / Libraries / Frameworks:** Axios, Babel, Express, Gin, Ginkgo, Go, Gomega, HTML, Jasmine, JavaScript / TS, Jest, Resty, Winston, LaTeX

- **Environments / Tools:** Ansible (AAP / AWX / Molecule / Tower), cURL, Bash, Git / GitHub, ESLint / JSHint, Make, MongoDB, Node.js / npm / npx, Swagger, tmux

- **Concepts / Protocols:** BDD, CI/CD (GitHub Actions / Travis CI), Containers (Docker / K8s / OpenShift / Podman), Data Interchange (CSV / JSON / YAML), HTTP(S), ODM (MGM, Mongoose), OOP, REST, RPC (gRPC / Protocol Buffers), Unix OS (Fedora / macOS/ Ubuntu), WS(S)

Experience

- **Advisory Engineer at IBM (April 2024 - Present)** Lateral internal transfer into the Cloud organization. A member of the software-defined networking group, responsible for the overlay that partitions IBM Cloud into VPC instances for clients. Specific focus is on development and maintenance of our VPC fabric controller, namely the proliferation of gRPC streaming, GPU networking support, as well as routing work around BGP & MPLS. Furthermore, engaged as a member of the internal patent community serving as a voting member of an Invention Development Team (IDT), in addition to filing two patents, one of which has been granted.

  - Patent Issued: https://patents.google.com/patent/US12413423B2

- **Advisory Engineer at IBM (May 2022 - March 2024)** Continued as a core back-end developer of containerized web services, though now in a full lead capacity. Designed, developed, and maintained critical applications for our broader department. A first being an automation integration service, which built a convenient bi-directional abstraction between the Ansible® Automation Platform & OpenShift®. This allowed application & automation developers alike to provide self-service solutions to end-users in a standardized manner, eventually made accessible through Slack and an intranet portal. A second service provided management of, and access to, auxiliary aspects of virtual machines. This included digital certificates, middleware, and compliance scans. Such was consumed by a front-end view, so to give employees more complete insight into their private cloud deployments.

- **Staff Engineer at IBM (May 2021 - April 2022)** Software engineer within the CIO organization, which provides IT services to employees. In particular, co-lead development of an API gateway proxy server to facilitate the migration off of a legacy monolith. Additionally, the primary back-end engineer on a micro-service-backed web application providing automated server management through Ansible® Tower. Our software is used to support virtual and physical infrastructure for thousands of users and is hosted on the RedHat OpenShift® Platform.

- **Graduate Intern at Nokia Bell Labs (June 2020 - August 2020)**

- **Graduate Research Assistant (September 2018 - May 2020)**

  - AAAI Conference Publication: https://doi.org/10.1609/aaai.v34i09.7065
  - GitHub Code Repositories: ocelot-ide/ElementaryJS, ut-amrl/robo-js

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Education

- **University of Massachusetts** — Amherst, MA
  M.S. Computer Science (3.97) — 09/2018 - 02/2021
- **University of Saint Thomas** — Saint Paul, MN
  B.A. Computer Science (4.00) & B.A. Applied Mathematics (3.75) — 09/2010 - 05/2015
  - Magna Cum Laude graduate with a cumulative GPA of 3.89.