Matthew Dong

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Experience

- **Target Corporation** — Minneapolis, MN
  Senior Engineer (Inventory Management Core Data team) — *Aug 2022 - Present*
  - Worked on design and implementation of large scale rewrite of legacy application calculating supply chain attributes for millions of items and casepacks across Target to improve its performance, scalability, and maintainability, as well as converting it from a REST API to GraphQL.
  - Played key role in new team formation and created both technical and non-technical infrastructure (e.g. new application templates, testing and deployment pipelines, onboarding documentation for new engineers) and took greater responsibility in product planning as well as initiative in mentoring interns / junior engineers.
  - On call responsibilities / production support - fixed bugs and educated users, triaged and resolved several incidents involving team's applications causing work stoppages at distribution centers.
- **Target Corporation** — Minneapolis, MN
  Engineer (Supply Chain Business Data Authoring team) — *Nov 2021 - Aug 2022*
  - Built new capabilities in different products across the stores & supply chain space, including features that allow managers to set which stores can receive inventory pushes, attributes describing whether an item is eligible for automation processes at distribution centers or fulfillment processes at stores, and data pipeline services used to transform and publish data for optimizing trailer loading. All capabilities included persisting data to Postgres and publishing to Kafka, necessary alerting & metrics, as well as auditing and test coverage. Collaborated with product owners to build these features, outlined acceptance criteria, executed design, implemented code feedback.
  - In both legacy and modern applications - addressed tech debt (API migrations, major dependency updates, security vulnerabilities, etc.) and improved codebases (updated CI/CD pipelines, contributed to libraries, added auditing, improved logs and observability, rewrote code, created documentation, etc.)
- **EcoDataLab** — Berkeley, CA
  Software Developer (Full-Stack) — *Aug 2020 - July 2021*
  - Led student developer team working on carbon footprint tool *(coolclimate.org/calculator)* used by both general public and businesses to achieve carbon neutral goals. Worked as partial scrum master, organized sprints and communicated goals and progress with stakeholders.
  - Improved service logic to increase API response accuracy *(coolclimate.org/api)*, implemented UI features with React/Redux, managed deployments through GCP Web Hosting and in-house server.
- **Computational Approaches to Human Learning (CAHL) Lab** — Berkeley, CA
  Software Developer & Machine Learning Research Assistant — *May 2018 - Aug 2020*
  - Collaborated on both research and development teams to build AI driven academic planning platform for UC Berkeley *(askoski.berkeley.edu)*. Helped pilot expansion of system to other university partners.
  - Built automated data pipeline using Apache Airflow integrating multiple campus APIs and registrar enrollment data dumps to retrain neural net models and refresh MySQL data tables.
  - Engineered full stack features using Angular/Flask (including course search) and helped refactor codebase to follow OOP practices and modern architecture patterns.
  - Published research paper demonstrating use of ML models in ed-tech course search tools (Proceedings).

Skills

- **Languages**: Python, Java, Kotlin, Bash, SQL, Javascript, HTML/CSS, C
- **Software Tools / Frameworks**: Git, Spring Boot, Ktor, Flask, Postgres, MySQL, Docker, Drone, Jenkins, Amazon Web Services, Google Cloud Platform, JupyterLab, Kibana, Grafana, Kafka, Angular 7+, React/Redux, GraphQL, Airflow, Gradle, DevTools, Postman
- **Data Science Tools**: PyData Stack (Pandas, NumPy/SciPy, SciKit-Learn, NLTK, TensorFlow/PyTorch), R
- **Domains**: Full-Stack Web Development, DevOps, Data Science, Machine Learning

Education

- **University of California, Berkeley** — Berkeley, CA
  B.A. Data Science - Environment and Resource Management emphasis (GPA: 3.93/4) — *Grad: Spring '21*

Updated: July 2023