Felix **Tran**

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Education

Massachusetts Institute of Technology *Cambridge, MA*

B.S. in computer science and engineering **GPA: 4.8/5.0** *Sep 2018 - May 2021*

- **CS Coursework:** Performance Engineering of Software Systems, Design and Analysis of Algorithms, Computer Systems Engineering, Software Construction, Machine Learning, Embedded Systems, Computation Structures
- **Math Coursework:** Mathematics with Applications in Finance, Probability and Random Variables, Linear Algebra, Multi Variable Calculus

Experience

Google *Sunnyvale, CA*

Software Engineer Intern *May. 2020 - Aug. 2020*

- Integrated Kpt as a deployer in Skaffold to expand configuration hydration processes and introduce declarative and reliable resource pruning for its users.
- Developed a new image tagging strategy in Skaffold that gives users more flexibility in generating image tags.
- Built GitOps CI pipelines using Kpt, Kustomize, Skaffold, and Tekton.

Microsoft *Cambridge, MA*

Software Engineer Intern *Jan. 2020 - Feb. 2020*

- Developed backend for **aka.ms/mosaic**, an interactive web application that allows users to reverse-image search on 488,546 artworks from the Rijksmuseum and the Met filtered by culture and medium.
- Deployed machine learning models onto Kubernetes clusters using Azure Machine Learning and Azure Kubernetes Services.
- Built CI/CD pipeline to automate software delivery process using Azure DevOps.
- Integrated Azure's API management tool into API to monitor network traffic and user insights.
- Created python bindings for conditional ball tree model in Microsoft's MMLSpark library.

CSAIL Julia Lab *Cambridge, MA*

Undergraduate Researcher *May. 2019 - May. 2020*

- Applied GANs to nonlinear mixed effect pharmacokinetic/pharmacodynamic models to enhance available covariate information that is accessible and predict optimal drug dosages for patients.

MIT DH Lab *Cambridge, MA*

Undergraduate Researcher *Sep. 2018 - May. 2019*

History of Computing Project

- Built online database of MIT's history of computation archives using Django and jinja2.
- Developed interactive simulation of basic programming operations in assembly using Javascript.
- comphist.digitalhumanitiesmit.org

Gendered Language Project

- Designed algorithms to analyze gendered language in thousands of novels using the dunning log-likelihood statistical model.
- Created visualizations for metadata and analytical data using matplotlib and seaborn.
- gendernovels.digitalhumanitiesmit.org

Fundamentals of Programming *Cambridge, MA*

Lab/Teaching Assistant *Feb. 2019 - Dec. 2019*

- Tutored students on fundamental concepts of programming. Topics include programming and Python basics, computational concepts, software engineering, algorithmic techniques, data types, and recursion.

Projects

Software	**Memory Scramble** Created an online multiplayer card game where players synchronously race to match cards.	*Nov. 2019*
	Tower Defense Created a tower defense game with configurable maps and towers.	*Oct. 2019*
Arduino	**Guitar Hero** Recreated classic Guitar Hero game with online multiplayer, leaderboards, and new songs.	*Apr. 2019*
	Bop-it! Recreated Bop-it! game with various I/O devices such as gyroscopes, microphones, and accelerometers.	*Mar. 2019*
	Blackjack Created interactive blackjack simulator using deckofcardsapi.com	*Feb. 2019*

Skills

Languages Python | Java | C | C++ | Go | Julia | Javascript

Technologies Git | Linux | Kubernetes | Docker | Kpt | Kustomize | Skaffold | Tekton | Azure ML | Azure DevOps | NumPy | SQLite | Django | jinja2 | Flask | HTML/CSS | BootStrap