

EDUCATION

Dartmouth College, Hanover, NH

June 2021

- **Mathematics, Computer Science B.A.**, **GPA: 3.95 / 4.00**
- **Honors:** Summa Cum Laude, Phi Beta Kappa, Rufus Choate Scholar, Presidential Scholar, Neukom Scholar
- **Relevant Coursework:** Algorithms, Software Design & Development, Full Stack Web Development, Machine Learning, AR/VR development, Computational Linguistics, Linear Algebra, Real Analysis, Probability Theory, Statistical Modelling

WORK EXPERIENCE

Appian Corporation (Low-Code Software Enterprise)

Sep 2021 – Present

Software Engineer

- Developing **custom NLP models**, analyzing metrics, and improving classification algorithms as a member of the Custom Artificial Intelligence team. Managing AWS tools such as Sagemaker, Textract and Comprehend to rapidly deploy document classification models in the cloud using Terraform.
- Deploying and maintaining a next-gen machine learning platform for ML model development and data science teams to transition from experimentation to production across all Appian systems. Optimized and scaled infrastructure to support training models with 5000+ documents, and across multiple regions globally.
- Building RESTful APIs for machine text extraction and intelligent document classification to be scalable and production-ready using the FastAPI framework, and deploying our service with containerization technologies (Docker, Kubernetes).

Keystone Strategy (Strategy & Tech Consulting Firm)

Jun 2021 – Sep 2021

Data Science Intern

- End-to-end development of digital platform backend to predict precise repair solutions to defected home appliances.
- Pre-processed 170,000+ rows of customer service data, and trained **deep learning NLP model** to outperform currently employed 3rd party software, increasing prediction accuracy from 89% to 98.6%.
- Built proprietary software codebase (~ 600 lines of Python code) for industry-leading repair intelligence company, increasing their enterprise value by double digits, to an estimated \$200 million.

Harmonize HQ (HR management SaaS company)

Jul 2020 – Sep 2020

Data Science Intern

- Used Python and SQL to develop a **logistic regression model** to forecast 3-month customer churn. Performed customer segmentation analyses and devised renewal marketing strategies.
- Automating a script using Selenium to scrap product reviews from review platforms to report 20+ bugs and defects.
- Worked with engineering team to improve **automated chatbot features**, boosting product adoption by 22% in 3 months.

JoyAether Limited (Mobile Solutions Startup)

Jul 2018 – Aug 2018

AR Software Engineer Intern

- Citibank HK: Led 2-month rapid development of a **mobile-banking app prototype** from scratch. Communicated with client for project scoping, defined timelines and KPIs, coordinated team meetings to set milestones and plan project sprints.
- SnapPop: Developed an **Augmented Reality mobile shopping app**, featuring reward games and 3D product modelling. Conducted Unity AR development, QA testing, and user research to support engineering, UX and marketing divisions.

RESEARCH + PROJECTS

NLP Research Scientist at Dartmouth Sustainable Health Labs

Python

Jun 2020 – Jun 2021

Research: Understanding Public Perception and Communication around Telehealth during the COVID-19 Pandemic

- Applied **sentiment analysis** and **hetero-functional graph theory** to characterize healthcare provider and patient communication patterns in the Twitter social network. Thesis published in *IEEE* and *INFORMS* scientific journals.

Autonomous Vehicles Research Scientist at Dartmouth Robotics Lab

Python

Mar 2021 – Jun 2021

Research: Autonomous Robotics Motion Planning

- Devising an **obstacle avoidance system** for autonomous surface vehicles. Implemented 3D LIDAR point cloud clustering for object detection and classification, and an Extended Kalman Filter to estimate object positions based on motion models.

Technical: Python, R, SQL, Java, C, C++, C#, HTML/CSS, JS (Node, React, Express), AWS, Terraform

Languages: Cantonese, Mandarin, French