# MACK DELANY

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## Summary

Full stack engineer with an entrepreneurial spirit and deep machine learning experience; seeking technical role at a mission driven company.

## **Skills**

Deploying machine learning applications in novel domains, including forest monitoring, healthcare and the life sciences.

Developing beautiful interfaces, and reliable, high-availability web applications and services with a relentless customer focus; first-rate with aws/cloud, typescript, python, react, JS, docker, ci/cd, linux.

Consistent first principles approach to innovation, teamwork and start ups, loves to learn and work hard with others!

## Experience

### SOFTWARE ENGINEER + COMPUTER VISION | NAI / CarbonCrop | New Zealand | Dec 2019 - Sep 2021

NAI is an applied venture studio, CarbonCrop is a seed stage startup that democratizes access to carbon credit markets

- Using remote sensing data and machine learning to quantify the carbon stocks of New Zealand forests
- Developing tooling for forest owners to understand carbon credit opportunities as well as historical and current land use
- Built an augmented reality microscope to detect microalgae in real time for marine labs, non-trivial optimisation: classifying 100+ algae species at 100-400x magnification from 5MP video feed at >2 frames / second
- Typical ML/web stack: React, Typescript, TensorFlow, PyTorch, CUDA, Docker, AWS, CI/CD pipelines, SQL, Linux

#### FOUNDER | STAN | New Zealand | Jul 2019 - Present

STAN is a Supportive Triage Assistant which uses AI to help emergency departments triage patients

- Deployed cloud based application which has supported >50K emergency presentations at multiple hospitals with 99.9% uptime
- Applying state of the art natural language processing technologies to medical notes and physiological observations
- Collaborating, liaising and negotiating with emergency departments, management and IT teams
- Nurses surveyed (n=21) think STAN improves triage consistency, clinical pathway uptake and high risk symptom recognition
- Doing all of the above as sole founder/engineer while working full time at NAI / CarbonCrop

#### PRODUCT MANAGER | Mish Guru | New York | 2016 - 2019

Mish Guru provides vertical video software for McDonalds, Coca Cola, Princeton and hundreds of other global brands

- Responsible for user experience and business intelligence; directly supported the raising of USD \$5.5m of venture capital
- Conducted customer interviews, managed marketing campaigns and product launches
- Built internal tooling using python, JS, SQL and linux using large scale production data

## Education

## BACHELOR OF ENGINEERING WITH HONORS (CIVIL) | University of Canterbury | 2012 - 2015

Honors GPA of 3.63 (4.0 Scale), specialized in fluid dynamics and hydrology

#### Personal

- Eligible to work in Europe, the UK, Australia and New Zealand, can work in the US with sponsorship (has H-1B visa)
- Loves skiing, mountain biking, basketball, running, good stories, hiking and all forms of nostalgia