

# JACK KEANE

Vail, CO · (617) 817-9957 · [john.f.keane.22@dartmouth.edu](mailto:john.f.keane.22@dartmouth.edu)  
[linkedin.com/in/jack-keane-co](https://www.linkedin.com/in/jack-keane-co) · [github.com/jakeane](https://github.com/jakeane) · [jackkeane.tech](https://jackkeane.tech)

## EDUCATION

**Dartmouth College**, Hanover, NH

**June 2022**

*Bachelor of Arts, Major in Computer Science, Minor in Quantitative Social Sciences*

**GPA 3.71/4.0**

*Relevant Coursework:* Algorithms, Software Design and Implementation, Full-Stack Web Development, Machine Learning, Discrete Mathematics, Problem Solving via Object-Oriented Programming, Smartphone Programming, Deep Learning, Artificial Intelligence

*Honors:* College Honor List 2020-2021 (Third Honor Group)

*Academic Merit Citation:* Full-Stack Web Development, Machine Learning, Artificial Intelligence, Data Visualization

## WORK EXPERIENCE

**Digital Applied Learning and Innovation (DALI) Lab**, Hanover, NH

**January 2021-Present**

*Software Engineer, Mentor*

- Collaborated with 5-6 person teams of developers, designers, and project managers to design and build full-stack projects for clients over 10-week terms in an on-campus startup incubator using TypeScript, React, Express, and MongoDB.
- Mentored new DALI developers through one-on-one meetings to help them master technologies used in DALI as well as develop best software engineering practices.
- Built a fully configured Express server template in TypeScript to save developers up to 1 week of development.

**Bank of America**, Pennington, NJ

**June 2021-August 2021**

*Software Engineer Intern*

- Worked with the Global Technology and Operations line of business to improve enrollment workflows for investing.
- Developed a C# program to automate the generation and distribution of an enrollment failure report, which occurred twice daily, saving 10 hours of manual work each week.
- Coordinated with other engineers to ensure the automated reports covered 74 possible scenarios.

**Dartmouth College**, Hanover, NH

**March 2021-June 2021**

*Research Assistant: Reinforcement Learning*

- Collaborated with a professor to design a new course in the computer science department for reinforcement learning.
- Consolidated material from existing university courses and research in the field to gain a strong understanding about reinforcement learning and its applications, which led to quality advice about course pacing and material.
- Designed assignments and projects to help students build intuition about reinforcement learning concepts and algorithms.

**Dartmouth College**, Hanover, NH

**September 2020-March 2021**

*Teaching Assistant: Machine Learning*

- Assisted in a machine learning course for 60 graduate and undergraduate students.
- Guided students through basic machine learning algorithms for classification, regression, and clustering on a conceptual level as well as an implementation level using Python and scikit-learn.
- Administered office hour sessions to help students in problem-solving and debugging through assignments.

## PROJECTS

**BetMate**, DALI Lab

**March 2021-Present**

*Software Engineer, Project Manager*

- Worked with startup BetMate to develop an online platform to spectate and wager on chess matches with virtual currency.
- Architected the backend server with TypeScript, Express, and Socket.IO to broadcast chess matches and process wagers.
- Developed and deployed machine learning microservices on AWS Lambda to determine betting odds.

**Therabot**, Geisel School of Medicine

**June 2020-June 2021**

*Research Assistant, Software Engineer*

- Performed research focused on the development and testing of a chatbot to treat anxiety and depressive disorder with mixed-methods research, which is aimed to lower access barriers for treating mental health.
- Architected the application infrastructure, comprising of a Flutter mobile application, a chatbot service using ParlAI, a FastAPI and TensorFlow machine learning service, and a Firebase database. Used AWS for deployment of services.
- Spearheaded the training of the chatbot through curating data and scheduling training scripts with Torque on high performance computing clusters. Assessed trained chatbot quality through quantitative and qualitative metrics.

## SKILLS & INTERESTS

**Languages:** TypeScript, Python, JavaScript, HTML, CSS, R, C#, Dart, C, Bash, Java

**Frameworks and Libraries:** React, Redux, Express, Socket.IO, Jupyter, scikit-learn, NumPy, pandas, PyTorch, React Native, ggplot2, TensorFlow, Flutter, Firebase, Webpack, Jest, FastAPI

**Tools:** Git, ZenHub, Linux, Docker, MongoDB, AWS (EC2, ECR, ECS, Lambda), Firebase, Heroku, Torque, Figma, Slack

**Additional Interests:** Skiing, Fantasy Football, Space, Traveling