

PAT STEFANOU

stefanou@mit.edu | (203) 912-2909

EDUCATION

Massachusetts Institute of Technology | Cambridge, MA

M.S. in Computer Science, *Candidate for June 2021*

B.S. in Computer Science, *Candidate for June 2020* | GPA: 4.4/5

WORK EXPERIENCE

NASDAQ Innovation Lab | Boston, MA | Summer 2019

Software Engineer – JavaScript, React, Redux, D3, Python, Flask

- Worked with four developers and a product manager to prototype a full-stack web application for monitoring fraudulent economic activity in sports betting markets
- Designed and implemented app's frontend with a React, Redux framework
- Devised relational database schema and brainstormed machine learning techniques for alert system and match analysis
- Developed data visualizations to analyze odd movement during a match
- Participated in and lead daily stand-ups to share application progress and troubleshoot road-blocks
- Presented project and gave application demonstration to company's CEO, CFO, CTO, and marketing teams
- Worked with Chief Data Scientist to design a web crawler, data acquisition tool that leverages NLP to interpret and normalize a web page's content
- Wrote Python web scrapers to collect training data
- Assembled full-stack Python web tool with React, Redux frontend and Python Flask backend
- Coded web crawler to scan web pages for URLs related to specific keywords

LiveData Utilities | Cambridge, MA | January 2019

Software Engineer – Python, Influx DB, Pandas

- Designed and deployed Python software to automate a Random Forest Regression model that estimates a community's electrical consumption based on weather and datetime
- Wrote Python script to retrieve real-time weather forecasts for twelve different communities
- Stored model data and results in Influx DB time series database for future RFR updates and prediction analysis
- Cleansed and aggregated Pandas DataFrames with RFR input data

SendFriend | Cambridge, MA | Spring and Summer 2018

Developer – JavaScript, React, Redux, Python, AWS

- Built user interface with a React, Redux framework
- Wrote Python scripts to retrieve and move user authentication files for integrating application into the Stellar Blockchain Platform
- Contributed to and proofread company's business plan

RESEARCH

MIT CSAIL Networks | Cambridge, MA | Spring 2019

Research Assistant, Systems for DNN Training– Python, Tensorflow, Horovod

- Worked on Ubuntu 16.04 Linux LTS Server
- Explored ResNet50 DNN training efficiency when parallelizing training over multiple GPUs

PROGRAMMING SKILLS

Web Development

React, Redux, JavaScript, Node, Flask, SQL, HTML, CSS, Sass, Truffle

Big Data

Python, Pandas, NumPy, TensorFlow, Horovod

Other

C, C++, Java, Solidity, Git, Bash, Confluence, Jira, Latex, PowerPoint, Excel

COURSEWORK

- Performance Engineering
- Design and Analysis of Algorithms
- Socio-Economic Networks
- Elements of Software Construction
- Machine Learning
- Artificial Intelligence
- Introduction to Algorithms
- Probability and Random Variables
- Mathematics for Computer Science
- Differential Equations
- Computation Structures
- Embedded Systems
- Oral Communication
- Fundamentals of Programming
- Principles of Finance

ACTIVITIES

Division III Varsity Men's Water Polo

2016 – Present | Captain

- 2016, 2018 D3 Eastern Water Polo Champions
- 2017, 2018 NCAA Academic All-American
- Reviewed resumes and cover letters, evaluated candidates, and lead technical interview as a 2019 Head Coach Search Committee member

MIT Theta Tau Technology Chapter

Fall 2017-Present | PD Chair, Tech Chair, Member

- Active member of Theta Tau Eta Chapter, MIT's only professional development fraternity

PERSONAL

Languages

English, Greek, French, Latin, Ancient Greek

Awards

Cum Laude, Three Hierarchs Achievement Award in Greek Language Studies

Interests

Water Polo, Caeleb Dressel, Kaatsu, *The Strokes*

PAT N. STEFANO

178 Shore Rd, Old Greenwich, CT, 06870 ▪ stefanou@mit.edu ▪ 203-912-2909

EDUCATION

Massachusetts Institute of Technology

M.S. in Computer Science

B.S. in Computer Science

- 4.4/5.0 GPA
- Relevant Coursework: Principles of Finance, Socio-Economic Networks, Microeconomics, Macroeconomics, Linear Algebra, Probability and Random Variables, Differential Equations, Mathematics for Computer Science, Performance Engineering, Design and Analysis of Algorithms, Introduction to Algorithms, Elements of Software Construction, Artificial Intelligence, Machine Learning, Fundamentals of Programming

Cambridge, MA

Candidate for 2021

Candidate for 2020

Brunswick School

- 4.0/4.0 GPA

- Awards: Cum Laude Society, Bouffier Language Prize, Three Hierarchs Achievement Award in Greek Language Studies, 2nd Team Water Polo All-American

Greenwich, CT

Class of 2016

WORK EXPERIENCE

NASDAQ Innovation Lab

Full Stack Developer

- Worked alongside four developers and a product manager to prototype a full-stack web application for monitoring fraudulent economic activity in sports betting markets
- Built application's frontend, devised relational database schema, and brainstormed machine learning techniques for alert system and match analysis
- Presented project and gave application demonstration to company's CEO, CFO, CTO, and marketing teams
- Worked with Chief Data Scientist to design a web crawler that leverages machine learning to interpret a web page's content

Boston, MA

Jun 2019 – Aug 2019

MIT Computer Science and Artificial Intelligence Lab

Research Assistant

- Explored Deep Neural Network training efficiency by parallelizing and pipelining the training process
- Dissected and analyzed research papers on DNN training parallelization and pipelining
- Worked on Linux server

Cambridge, MA

February 2019 - May 2019

LiveData Utilities

Developer

- Designed and deployed Python software to automate a Random Forest Regression model that estimates a community's electrical consumption based on weather and datetime
- Wrote Python script to retrieve real-time weather forecasts for twelve different communities
- Stored model data and results in a time series database for future RFR updates and prediction analysis
- Wrote Python scripts to clean training data

Cambridge, MA

January 2019

SendFriend

Developer

- Coded application's user interface to demo and pitch product to potential investors
- Wrote Python scripts to retrieve and move user authentication files for integrating application into the Stellar Blockchain Platform
- Contributed to and proofread company's business plan

Cambridge, MA

Jun 2018 – Aug 2018

ACTIVITIES

MIT Varsity Water Polo

Captain

- 2016, 2018 Division 3 Eastern Water Polo Conference Champions
- 2017, 2018 NCAA Academic All-American
- Reviewed resumes and cover letters, evaluated candidates, and lead technical interview as a 2019 Head Coach Search Committee member

Cambridge, MA

Aug 2016 – Present

MIT Theta Tau Technology Chapter

PD Chair, Technology Chair, Member

- Active member of MIT's only professional engineering fraternity

Boston, MA

Fall 2017-Present

PERSONAL

Skills: Python, Java, C, C++, Excel, PowerPoint, Greek, French, Latin, Ancient Greek

Interests: Ethereum, Machine Learning, Water Polo, Caeleb Dressel, Kaatsu, *The Strokes*