Chester Huynh

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Education

Johns Hopkins University *Baltimore, MD*

B.S. in Biomedical Engineering (Focus: Data Science), B.S. in Computer Science. *Aug. 2017 - May 2021*

- **Dean's List** (2017 - PRESENT)
- **Computer Science Coursework**: Data Structures (CS226), Algorithms (CS433), AI (CS464), Machine Learning (CS475)
- **Mathematics Coursework**: Probability (AMS420), Statistics (AMS430), Deep Learning in Discrete Optimization (AMS467)
- **Engineering Coursework**: Biomedical Data Science (BME475), Build an Imager (BME494), Systems and Controls (BME246)

Experience

Microsoft *Seattle, WA*

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

- Applied machine learning and data science techniques at an industry standard as a part of the E360 Data Intelligence team.
- Led project for constructing a machine learning pipeline to analyze and identify rogue access points using collected telemetry data.
- Contributed to anomaly detection project to identify peculiar activity on the corporate network using collected telemetry data.
- Learned the key principles of Scrum methodology, working in 2-week sprints with a team of 15 engineers.
- **Technologies Used**: Azure Databricks, Azure DevOps, Visual Studio, Azure ML Studio, and Python

Medtronic *Framingham, MA*

Software Engineer, Intern *May 2019 - Aug. 2019*

- Led Summary Website for Automation project as a part of Medtronic's MCS R&D cohort on the Validation & Verification team.
- Composed user needs and requirements documentation to guide project design and execution.
- Developed nightly updating dashboard website to reduce the need for text-heavy XML test result files and time between Agile work cycle sprints.
- **Technologies Used**: Django web framework, Python, JavaScript, HTML/CSS, SQL, IIS, SVN, and C#.

Neuromedical Control Systems Laboratory (Prof. Sridevi Sarma) *Baltimore, MD*

Undergraduate Research Assistant *Dec. 2018 - PRESENT*

- Optimized threshold clustering algorithm for locating and labeling SEEG electrodes in brain scans to accelerate patient coregistration.
- Contributed to NCSL neuroimaging pipeline by implementing Python script that automates localization and labeling electrodes in brain scans.
- Implemented a variation of the Random Forest algorithm specialized for classification tasks with multivariate time series data.
- **Technologies Used**: Python, C++, Jupyter, Docker, and Git.

Teaching

JHU Computer Science Department *Baltimore, MD*

Course Assistant for AI CS464 *Jan. 2020 - May 2020*

- Responsible for holding office hours, proctoring, grading assignments and exams, and responding to questions on online forums (10 hours/week).
- Content includes tree and graph search algorithms, reinforcement learning, graphical models, machine learning, and deep learning.

JHU Applied Math & Statistics Department *Baltimore, MD*

Teaching Assistant for Probability AMS420/620 *Aug. 2019 - Dec. 2019*

- Responsible for leading review sessions and weekly recitations, holding office hours, and grading assignments and exams (12 hours/week).
- Content includes combinatorics; transformations on probability, joint, and conditional distributions; limit theorems; and stochastic processes.

JHU Office of Academic Support *Baltimore, MD*

PILOT Leader *Aug. 2018 - Aug. 2019*

- Directed weekly sessions in Organic Chemistry and Discrete Math with 10-15 undergraduates through problem sets to supplement course content.
- Committed to weekly preparatory meetings with other leaders to prepare for sessions.

JHU Biomedical Engineering Department *Baltimore, MD*

Lab Manager *Aug. 2018 - Dec. 2018*

- Guided a group of 5 BME freshmen through hands-on labs to hone their engineering skillsets to a college standard.
- Accompanied group to lab visits in order to provide an immersive experience into the BME program.
- Committed to assisting and grading of final projects as well as meetings with course instructors for how to provide guidance in hands-on labs.

Projects

TetrisAI *https://github.com/ChesterHuynh/tetrisAI*

Personal Project *Jul. 2019*

- Developed using Python and TensorFlow/Keras to further understanding in deep learning and reinforcement learning.
- Achieved a score of 700,000 points given scoring schema, using Q-learning neural networks to approximate state-action q-values.

Medhacks: Team TriTag *https://devpost.com/software/tritag*

Co-Founder, Top 10 in Category Award *Sep. 2018*

- Proposed a modernized medical Triage risk assignment scheme through development of an iPad app and an Arduino-based identifier.
- Designed app using React Native framework and utilized Google Firebase server to house human-readable JSON data entries.

Achievements

2018 **Medhacks 2018 Finalist**, Developed digital tool for first responders to assign risk levels to patients at incident sites. *Baltimore, MD*

2017 **MIT Think 2nd Place Winner**, Funded with a $1000 grant to conduct a project with a peer on integrating piezoelectric sheets into roadways as a method for signaling of traffic light operation. *Cambridge, MA*

Skills

Programming Skills *(Proficient):* Python, Java, C++, SQL, *(Learning):* C, HTML/CSS, JavaScript

Technologies/APIs *(Proficient):* TensorFlow, PyTorch *(Learning):* R, Git, Azure Databricks *(Beginning):* Django, Microsoft SQL, PostgreSQL, SQLite

Extracurriculars

Hippocrates Medical Review (HMR) *Baltimore, MD*

Biotechnology Committee Writer *Aug. 2018 - PRESENT*

- JHU's medical editorial that publishes articles on the official HMR **website** and prints articles in the HMR journal publication.
- Authored three articles that have been featured on the HMR website with one featured in the HMR 2019 journal publication.

TEDxJHU *Baltimore, MD*

Multimedia Specialist *Aug. 2017 - PRESENT*

- Responsible for photographing and recording speaker events and advertisements as well as editing and creating event and promotional videos.
- Created promotional videos for events as well as edited and curated videos for the official TEDx site and YouTube channel.