

# Hieu Le

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## EDUCATION

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### **Boston University - Boston, MA**

Ph.D in Computer Science

September 2018 – Present

**Area of Interests:** Machine Learning, Compressive Sensing, Natural Language Processing

### **Dickinson College - Carlisle, PA**

Bachelor of Science in Computer Science

**Graduated with Honors** – May 2016

**Cumulative GPA: 3.8**

**Major Coursework:** Data Structure and Problem Solving, Analysis of Algorithm, Database Systems, Programming Language Structure, Artificial Intelligence, Computer Organization and Architecture.

## ACADEMIC WRITING

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### **Applying Novelty Search to the Construction of Ensemble Systems**

*Dickinson College Honors Theses. Paper 237.*

May 2016

- **Target Problem:** Ensemble systems for classification problems do not perform well when ensemble members behave similarly.
- **Research Approach:** Apply novelty search – a technique to evolve neural networks based on diversity – and Adaptive Boosting to create behaviorally diverse members for ensemble systems. Apply the ensemble systems created by described technique on 3 classification datasets from UC-Irvine public repository.
- **Results:** Experiments on the 3 datasets give a comparable result (error rate of classification) to other published researches on the same datasets.
- **Conference:** The research poster was accepted and presented during poster exhibit at the Consortium for Computing Sciences in Colleges-Northeastern Region 2016 (CCSCNE).

## RESEARCH AND TEACHING EXPERIENCE

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### **Department of Computer Science – Boston University**

*Research Assistant – Teaching Assistant*

September 2018 – Present

- Performing research on Applications of Compressive Sensing Techniques.
- Monitoring Lab Sessions of CS 108 – Application Programming Class.
- Holding Office Hours, helping undergraduate students learning Computer Science concepts.

### **Department of Computer Science – Dickinson College**

*Research Assistant*

September 2015 – May 2017

- Studied neural networks/neural evolution techniques and classification problems.
- Applied novelty search – a neural evolution technique to breast cancer and liver-disorder diagnostic problems using training data from UC-Irvine machine learning repository.
- Implemented Adaptive Boosting algorithm (ADABOOST) and conducted experiments on novelty search. The results of the experiments are comparable with methods published by other researchers.
- Working on expanding novelty search, applying boosting techniques such as entropy, absolute deviation to novelty metric

### **Department of Computer Science, Dickinson College Farm – Dickinson College**

*Database researcher-Web application developer*

June 2014 – May 2015

- Studied farming and data management process at Dickinson Farm, designed and constructed MySQL databases that reflect existing paper records of farming data.
- Used PHP, JavaScript to implement a web application for Dickinson College farm, connecting to MySQL database to keep track of farming data.
- Implemented a user-friendly mobile UI for farmers to input farming data in the field.
- Scaled up and customized the application for 2 other farms in Cumberland Valley Area

## **Department of Mathematics and Computer Science – Dickinson College**

*Teaching assistant, Member of Major's Committee*

August 2013 – May 2016

- Took part in faculty recruitment, personnel reviews; provided a students' voice in departmental issues.
- Assisted a math professor during lab periods for calculus class and provided helps for 30 students.
- Monitored math help room, helped students to brainstorm and solve homework problems.

## **SKILLS**

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- Languages: Java, MATLAB, Scheme, LaTeX, JavaScript, HTML/CSS, PHP, Python, MySQL
- Applications: Git, NodeJS, Django (application framework), Unit Testing, Scrum, Eclipse IDE

## **ACADEMIC HONORS, AWARDS AND ACTIVITIES**

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- Upsilon Pi Epsilon - International Honor Society for the Computer Science Disciplines
- Magna Cum Laude – Graduate with high GPA
- Dickinson College team – Mid Atlantic Regional ACM Programming Contest
- Alpha Lambda Delta National Honor Society for First Year Student
- John Dickinson Scholarship- Dickinson College's highest recognition
- Dickinson Dean's List

## **WORK EXPERIENCE**

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### **Shopkick Inc – Redwood City, California**

*Software Engineer*

August 2016 – June 2018

- Implementing infrastructure for Shopkick web portal system.
- Implementing multiple front-end components for Shopkick web portal system.
- Designing and Implementing promo code system for Shopkick mobile app.

### **Yahoo! Inc – Sunnyvale, California**

*Software Engineering Intern*

May 2015 – August 2015

- Implemented chrome push-notification for Yahoo News & Sports.
- Implemented functional & unit tests with Mocha & Chai Testing Framework for NodeJS.
- Implemented A/B testing features for Yahoo daily fantasy with React JS.

### **Frittie – Greater Philadelphia Area**

*Back end web developer*

January 2014 – January 2015

- Worked with 6 other students to build Frittie.com – a social network that helps people create and organize events.
- Implemented localization for the social network Frittie.com, translating text to different languages.
- Used Django tools to implement and improve geolocation functions which can detect location by IP address.
- Used Django Celery to implement a periodic task which emails to users with suggestions of local events.