

Ethan Chau

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EDUCATION

UNIVERSITY OF WASHINGTON

M.S., COMPUTER SCIENCE

Expected Jun. 2021 | Seattle, WA

GPA: 4.00

B.S. WITH DISTINCTION,

COMPUTER SCIENCE (DATA SCIENCE)

B.A., LINGUISTICS

Sept. 2016 - Jun. 2020 | Seattle, WA

Thesis: Towards Resource-Efficient
Contextual Word Representations for
Parsing

GPA: 3.97 (CS), 3.98 (Linguistics)

SWISS FEDERAL INSTITUTE OF TECHNOLOGY (ETH)

EXCHANGE STUDENT, COMPUTER
SCIENCE

Sept. 2019 - Feb. 2020 | Zürich, CH

COURSEWORK

Natural Language Processing
Advanced NLP • NLP Capstone
Artificial Intelligence
Reliable and Interpretable AI
Advanced Machine Learning
Information Retrieval
Data Structures • Algorithms
Operating Systems • Security

SKILLS

PROGRAMMING

Proficient

Java • JavaScript • Python

Familiar

Bash • C • C++ • C# • Google Protobuf
Hack • HTML/CSS • Ruby • SCSS • SQL

TECHNOLOGIES

AllenNLP • Git • Mercurial • NumPy •
PyTorch • React.js • Spring Framework

LANGUAGES

English (Native) • Mandarin (Fluent)
Cantonese (Proficient) • Spanish
(Intermediate) • German (Beginner)

LEADERSHIP

COMMON GROUND FELLOWSHIP

DISCUSSION LEADER

Jun. 2020 - Present

CORE TEAM LEADER

Aug. 2017 - Aug. 2018

EXPERIENCE

FACEBOOK | MACHINE LEARNING ENGINEERING INTERN

Jun. 2020 - Present | Seattle, WA

- Driving the development of a configurable, end-to-end system for content **retrieval** and recommendation using **C++** and **Hack**
- Designing efficient data-collection pipelines for **search index** construction
- Investigating **ML** algorithms for content ranking with **PyTorch** neural networks

UNIVERSITY OF WASHINGTON | NLP RESEARCHER

Mar. 2018 - Present | Seattle, WA | Advisors: Prof. Noah A. Smith, Lucy H. Lin

- Leading the design of informed model training methods for **low-resource** contextual word **representation**
- Developing a system for parsing nonstandard dialects of English

FACEBOOK | SOFTWARE ENGINEERING INTERN (BACKEND)

Jun. 2019 - Sep. 2019 | Menlo Park, CA

- Architected a modular, interpretable, and configurable suggestion system in **Hack** with a **37%** higher success rate than previous versions
- Engineered **ML** features that achieved **~80%** accuracy and F1 on the task
- Developed a multi-stage model training pipeline tailored to the application

UNIVERSITY OF WASHINGTON | TEACHING ASSISTANT (NLP)

Jan. 2019 - Mar. 2019 | Seattle, WA | Instructor: Prof. Noah A. Smith

- Developed a new **PyTorch** - and **AllenNLP** -based text classification assignment
- Planned and **led** a weekly discussion section and office hours for 35 students
- Published a comprehensive, **officially featured** tutorial for AllenNLP 📄

INDEED.COM | SOFTWARE ENGINEERING INTERN (BACKEND/DATA)

Jun. 2018 - Aug. 2018 | Seattle, WA

- Integrated an **NLP** library into a **backend** suggestion service and developed a text extraction-based heuristic, yielding **6x** the number of acceptances and reaching **2x** as many users as the next best source
- Architected and developed a **Java-Protobuf** service infrastructure for machine learning evaluation that decreased required service calls by **5x**
- Deployed a **Jenkins**- and **Mesos**-based continuous integration system

INDEED.COM | SOFTWARE ENGINEERING INTERN (FULL STACK)

Jun. 2017 - Sept. 2017 | Seattle, WA

- Built and stylized a custom **React** frontend to minimize server load
- Implemented an extensible **Java** data storage and retrieval model

PROJECTS

ALLENNLP-XLA | MACHINE LEARNING LIBRARY

- A port of the AllenNLP natural language processing library with TPU support 📄
- Technologies: **Python**, **PyTorch**

WHERE'S MY BUS? | FULL-STACK WEB APP

- A lightweight transit tracker for the Seattle area 📄
- Technologies: **Azure App Service**, **Brunch**, **Python**, **React**

COMMUNITY INVOLVEMENT

EVANGELICAL CHINESE CHURCH | TAIWAN/AWANA YOUTH LEADER

Sept. 2013 - Sept. 2018 | Redmond, WA & New Taipei City, Taiwan

- **Designed** and taught daily English classes to 20+ under-resourced youth
- **Facilitated** daily re-evaluations of content and methods with fellow teachers
- Supervised and **mentored** incoming youth leaders