

# Ethan Chau

📧 ethch18 | in echau18

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## EDUCATION

### UNIVERSITY OF WASHINGTON

M.S., COMPUTER SCIENCE

Expected June 2021 | Seattle, WA

B.S., COMPUTER SCIENCE

(DATA SCIENCE OPTION)

B.A., LINGUISTICS

Expected June 2020 | Seattle, WA

GPA: 3.96 | Dean's List Au '16 - Sp '19

### SWISS FEDERAL INSTITUTE OF TECHNOLOGY (ETH)

COMPUTER SCIENCE EXCHANGE

Sept. 2019 - Dec. 2019 | Zurich, CH

## COURSEWORK

Natural Language Processing

Natural Language Processing Capstone

Reading & Representation for NLP

Machine Learning • Artificial Intelligence

Data Structures & Parallelism

Algorithms • Operating Systems

Programming Languages • Security

## SKILLS

### PROGRAMMING

Proficient

Java • JavaScript • Python

Familiar

Bash • C/C++ • C# • Google Protobuf

Hack • HTML/CSS • Ruby • SCSS • SQL

### TECHNOLOGIES

AllenNLP • AssertJ • Cloudbees Jenkins

EasyMock • Fisheye • Git • JIRA

Mercurial • NumPy • PyTorch • React.js

Spring Framework • Upsource

### LANGUAGES

English (Native) • Mandarin (Fluent)

Cantonese (Proficient) • Spanish

(Intermediate)

## LEADERSHIP

### CORE TEAM MEMBER

COMMON GROUND FELLOWSHIP

Aug. 2017 - Aug. 2018

## INTERESTS

Natural Language Processing •

Machine Learning •

Piano • Violin • Tennis • Ultimate Frisbee

## EXPERIENCE

### UNIVERSITY OF WASHINGTON | NLP RESEARCH ASSISTANT

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

- Leading the design of informed model architectures and initialization methods for **low-resource** contextual word **representation**
  - Preliminary results outperform existing benchmarks by several points
- Developing a system for parsing nonstandard dialects of English
- Investigated methods for **domain adaptation** in natural language inference

### 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

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

- Course: CSE 447/547M (Natural Language Processing)
- 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
- Developed a set of **REST API** controllers with a test coverage of **over 90%**

## PROJECTS

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

- A lightweight transit tracker for the Seattle area 📄
- Designed and built a responsive **React** user interface and **Python** API wrapper
- Configured a **Brunch** and **Azure App Service** deployment pipeline

### ECHAU18.GITLAB.IO | PERSONAL PORTFOLIO

- A configuration-driven personal portfolio generator 📄
- Designed a modular, responsive frontend with **React** and **SCSS**
- Defined a lightweight **JSON** configuration format for code-free site generation

## 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 with fellow teachers of content and methods
- Supervised and **mentored** incoming youth leaders