MIKE HE

https://ad1024.space

dh63@cs.washington.edu
(206) · 887 · 8588

EDUCATION

University of Washington, Seattle *Sept. 2018—Est. Jun. 2022*
B.S. in Computer Science
- Cumulative GPA: 3.89
- Interests of Studies: Programming Languages & Formal Verification & Compilers

Selected Courses:
- **CSE 332** Data Structures & Parallelism
- **CSE 402** Domain-Specific Langauges
- **CSE 490** Programming Languages & Program Verification
- **CSE 505** Principle of Programming Languages
- **CSE 507** Computer-Aided Reasoning for Software

SKILLS

Languages	Python, Java, Rust, Haskell, Agda, OCaml, LaTeX
Skills	Certified Programming, Functional Programming, Automated Verification
Others	I've been playing the violin for 16 years.
	I like Symphonies composed by Gustav Mahler.

EXPERIENCE

PLSE Oct. 2019—Now
Research Assistant *Seattle, WA*
- Working on 3LA Marlowe, aiming to find verified and automated compilation from Deep Learning models (Relay) to accelerators (e.g. FlexNLP). (Summer RA).
- Worked on tvm/relay, a High-Level Intermidiate Representation for tvm.
- Worked on Dynamic Tensor Rematerialization, an online greedy gradient checkpointing algorithm.

UWECE Jan. 2019—Sept. 2019
Research Assistant *Seattle, WA*
- Developed an online panel for visualizing data collected from solar panels deployed around UW campus; Deployed the system to the CEI Testbeds, tested for its stability and optimized its performance.

PROJECTS

Sager *On Github*
A Demonic Graph Synthesizer (data structure synthesizer) using ROSETTE that aims for worst-case performance of graph-related algorithms (e.g. SSSP).

veripy *On Github*
An auto-active program verification library for Python3 base on verification condition of Hoare Logic.

dtlc *On Github*
An implementation of a proof assistant based on Dependently-typed Lambda Calculus.

HONORS

- **Lynn Conway Research Award (DTR Team)**, ADA *2020*
- **JASSO Scholarship**, Waseda University *Jun. 2019*
- **Annual Dean's List**, University of Washington *2018—2020*
- **First Prize**, Software Engineering Hackathon for High School Students (Beijing) *Apr. 2017*
- **Second Prize**, National Olympiad in Informatics (Beijing Regional) *Dec. 2016*