

Eric Hao

erichao2018@gmail.com | 480-570-5969 | <https://www.linkedin.com/in/erichao2018> | <https://github.com/brotatotes>

EXPERIENCE

BibleGo.org, Cleveland Heights, OH July 2023 – Present

Software Engineer Project Lead

[BibleGo.org](https://biblego.org) is a web application that helps people study the Bible by presenting time-tested commentaries in a digestible way. It creatively uses AI to produce commentary summaries which serve as appetizers to the commentaries themselves.

- Deliver BibleGo.org to hundreds of active users by translating high-level vision into well-defined user-centered features, bringing the entire project from initial conception to live product in 6 months
- Automatically generate and evaluate thousands of commentary summaries by developing a custom AI pipeline and fine-tuned quality scoring metric using **Python**, **ChatGPT**, and **NLP (NLTK, TensorFlow, scikit-learn, spaCy, Stanza)**
- Build, present, user-test, and deploy key website features by leading a team of developers, UI/UX engineers, and volunteers, and incorporating ideas and feedback from a board of experienced Bible scholars each week
- Develop and maintain a production-ready codebase and deployment pipeline using **Typescript**, **Next.js**, **Tailwind**, **Vercel**

Microsoft, Azure Compute Services, Redmond, WA Sept 2018 – Aug 2022

Software Engineer, Software Engineer II

The Allocator team specializes in building complex microservices which allocate millions of VMs per day in the cloud.

- Reduced concurrent collisions and retries by over 50% in busy regions by implementing a now patent-pending collision avoidance algorithm that pseudo-randomly allocates computing resources to reduce placement conflicts:
Patent # [US20230362103A1](https://patents.google.com/patent/US20230362103A1) – *Reducing Placement Conflicts Between Concurrent Virtual Machine Allocations*
- Designed, built, and deployed core cloud infrastructure services that perform millions of VM placement decisions per day
- Advanced scale capabilities by delivering performance improvements based on detailed analysis of terabytes of data, designing improved monitoring systems, and streamlining hotfix and patch deployment procedures
- Coordinated with several teams to organize and create a workflow enabling dedicated and reserved capacity
- Contributed extensively to several large (50+ GB) repositories using **.NET**, **C#**, **PowerShell**, **Git**, and **Azure DevOps**
- Answered, investigated, mitigated, and resolved urgent customer-impacting incidents as part of an all hours on-call rotation

LEADERSHIP & VOLUNTEERING

Great Lakes Christian College Summer Retreat, *Lead Coordinator* Aug 2023

The lead coordinator is responsible for organizing a week-long event with hundreds of participants and volunteers by selecting and working with 15 planning team coordinators, communicating with retreat property managers, and managing real-time event needs.

Journey Learning Studio, *Instructor (Programming Projects with Python)* June 2022 – Aug 2022

The Python programming instructor is responsible for delivering an 8-week high school summer course, designing custom lesson and homework materials from scratch, and teaching weekly 1-hour classes with Zoom, Google Classroom, and repl.it.

Microsoft Software and Systems Academy (MSSA), *Mentor* Jan 2022 – May 2022

Mentors in Tech (MinT), *Mentor* Nov 2020 – June 2021

CodeDay Labs, *Project Mentor* June 2020 – Aug 2020

SKILLS

Programming: C#, Python, Java, C, C++, Lisp, Scala, HTML, CSS, JavaScript, TypeScript, PowerShell, Bash, KQL, SQL

Tools: Git/GitHub, .NET, Azure DevOps, Vercel, Kusto, Kafka, Unity, Next.js, React, Linux

EDUCATION

Northwestern University, Evanston, IL Sept 2014 – June 2018

B.S., M.S. Computer Science, McCormick School of Engineering and Applied Science, *Magna Cum Laude*