BRAYDEN HAND

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Education

Duke University   **Aug. 2021 – May 2025**
3.7 GPA - BSE in Electrical and Computer Engineering, BS in Computer Science   *Durham, NC*
- Certified SolidWorks 3D Modeling Associate (**CSWA - Mechanical Design**)
- Duke Applied Machine Learning Engineer (DAML)

Relevant Coursework

- Neural Nets
- Cryptography
- Computer Architecture
- Linear Algebra
- Full Stack Applications
- Algorithms
- Signals and Systems
- Probability

Experience

New York Life   **May 2024 – August 2024**
AI/Machine Learning Intern   *New York City, NY*
- Working on the **premiere AI landing zone** for New York Life deploying a **custom fine-tuned LLM** for agency, also learning **CI/CD**.
- Performing research and development on advanced RAG model implementations at mass-scale industry level.
- Taking classes in **Langchain**, **Pytorch**, **Scikit**, and RAG deployment.

New York Life   **May 2023 – August 2023**
Software Engineering Intern - Automation   *New York City, NY*
- Built **custom RestAPI connector** for Zoom application allowing the automatic provisioning of 150 users per month.
- Won **1st Place** award for a skills matching app for employee cross training using **Scikit**, **Python**, **Figma**, and **generative AI** models that will allow the migration to a value stream business model to be cut down by 4 months.
- Created automation scripts for the message engineering team using **PowerShell**, **Unix**, and **MS PowerApps** removing over 50 employee tasks.

Cari.net   **May 2022 – August 2022**
Software Development Intern   *San Diego, CA*
- Migrated main controller and event handler for the Cari mass market sales app to **Laravel framework** and Bootstrap 5, developing skills in **PHP, MySQL, and Docker.**
- Pushed frontend and backend tools to production and sold to over **200 companies across the world.**
- Worked with a fast-paced team using **Azure** and **scrum principles** to produce weekly value in each sprint.

Projects

Recipes By Hand | *Python, Flask, HTML/CSS, SQLAlchemy, Jinja*   **November 2023**
- Built a full scale recipe application with users, database, server-side classification algorithms, and user recommendation system.
- Created a social feed where users could like and comment on recipes as well as save them to their cookbook.

Earthquake Detection System | *Python, Java, C, SQL*   **January 2021**
- Lead a team of 8 in creating an early warning earthquake detection system using ESP32 microcontrollers with **IOT technology, PyTorch, mesh networking, and firebase to reduce casualties in building collapses in low-income areas.**
- Organized product timeline, performed data science and analytics, wrote unit tests, and created visualization tools for data printouts using **Python, Java, and C.**

5 Stage Pipelined Processor | *MIPS, Assembly, C, Logisim*   **November 2022**
- Created a single core CPU in logisim running a **modified MIPS architecture** capable of performing any basic computation or IO task.
- Built a cache, memory, ALU, 5 stage pipelining, and a **custom control schema** down to the logic gate.
- Used **Assembly, C, and Java,** to code various CPU components at a high and low level.

Engagement Tracking App | *Python, React, HTML/CSS, Eye Tracker*   **January 2023**
- Built a Tiktok style app with an eye tracker that automatically scrolled based on engagement.
- Used the **YouTube API** to play videos alongside a **custom python web scraping script** for the links.
- Used **react** to build an app that integrated the eye tracker on the web.

Technical Skills

Languages: Python, Java, PHP, PowerShell, MIPS, C, HTML, CSS
Developer Tools: VS Code, Figma, Azure, Jira, MS Cloud Platform, AWS, Langchain, Scikit
Technologies/Frameworks: Linux, SolidWorks, Git, JUnit, Docker, React, Laravel