

BAIBHAV THAPA

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Education

University At Buffalo

Bachelor of Science in Computer Science

Sep. 2020 – May 2024

Buffalo, New York

Relevant Coursework

- Artificial Intelligence
- Blockchain
- Full Stack Development
- Distributed Systems
- Data Structures
- Ansys Lumerical

Experience

Blockchain Lab, University At Buffalo

Research Intern and Teaching Assistant

May 2022 – Present

Buffalo, New York

- Reported experimental findings to Dr. Bina Ramamurthy to analyze and interpret solutions in the field of Web 3 development.
- Facilitated the learning of approximately 150 students each semester on the development of decentralized applications (dApps) and the writing of smart contracts.
- Developed and maintained applications for classroom management including attendance and participation tracking, utilized by over 150 students daily. Built using React and Solidity
- Wrote technical documentation to communicate key points to developers and students about Metamask and Optimism.

Sun Density

Engineering Intern

May 2023 – January 2024

Rochester, New York

- Developed and implemented Python scripts to automate Finite-Difference Time-Domain (FDTD) simulations, increasing efficiency and accuracy.
- Utilized ANSYS for advanced simulation purposes and MATLAB for data computation and visualization.
- Collaborated with team members using version control systems such as Git to organize modifications and assign tasks.
- Conducted comprehensive data analysis on various parameters of Perovskite Solar Cell (PSC) sheets, facilitating process optimization and improvements.

Projects

Zero Knowledge Ads (Shortlisted for Y-Combinator W23) | *Cadence, React*

October 2023

- Started a SDK which allowed creators to monetize revenue without 3rd party monopolies.
- Utilized smart contracts to securely and transparently facilitate NFT transactions on the FLOW blockchain.

Crypto Capy | *React, Solidity, Hardhat, Alchemy, Metamask, Coinbase Wallet*

June 2023

- Game was played by 20,000+ players and partnered with Base Name Services (Incubated by Coinbase) .
- Developed a web based game that stores leaderboard information on the blockchain using smart contracts.
- Utilized Base L-2 solution using the Optimistic Roll-up to make the transactions low cost and efficient.
- Programmed with React to make a web application which acted as a decentralized application

MATIC Wallet — Send money to anyone | *Solidity, React*

July 2022

- Developed and implemented a decentralized application (DApp) using layer-2 Ethereum solutions, enabling secure and transparent peer-to-peer transactions with low gas fees.
- Designed and implemented a user-friendly interface for users to easily interact with the DApp..
- Conducted extensive testing and debugging to ensure the security and reliability of the DApp

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, MATLAB, COMSOL **Developer Tools:** Visual Studio, Eclipse, Ansys, MATLAB, COMSOL Multiphysics **Technologies/Frameworks:** Linux, GitHub, Git, Numpy, Mathematical Modeling, Simulation, Algorithm Design, Data Structures

Leadership / Extracurricular

EthChicago 2023, Arbitrum Bounty Winner

Team Leader

Chicago, Illinois

- Created a hyperledger for the Pharmacy Supply chain.
- Collaborated with Base network developers to receive feedback and suggestions for improving our code.
- Interacted with Jesse Pollack, a prominent figure in protocols at Coinbase, and gained valuable insights about the industry.
- Enhanced coding skills and gained knowledge about blockchain technology and cryptocurrency.