

Address:
48-50 Kaiserslauterer Straße
Saarbrücken, 66123, Germany

Vabuk Pahari

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WORK EXPERIENCE

Max Planck Institute for Software Systems, Saarbrücken Germany September 2020 –

PhD. Candidate, Computer Science. Advised by Dr. Krishna Gummadi

- Conducted research on blockchain systems such as Bitcoin and Ethereum on different prioritization policies of miners
- Built a simulator to analyze the dynamics of transaction issuers and miners in blockchains
- Created a database with over 300 million transactions to analyze how users interact with Decentralized Finance (DeFi)

Chainlink Labs

July 2022 – December 2022

Research Engineering Intern

- Worked on Cross-Chain Interoperability Protocol (CCIP) for securely sending tokens and data between blockchains
- Implemented Smart Contracts in Solidity for a Cross-Chain Governance Protocol using CCIP
- Researched the dynamics of using different kinds of ERC20 Token Structures for Cross-Chain Bridges

Wesleyan University, *RIS Summer Fellow*, Middletown, CT

May 2018 – August 2018

- Lead research on the devolution of connected components in large random networks in local, targeted, and random attacks by running simulations.
- Analyzed various real-world road networks by comparing them to theoretical models and observing the performance of the network under different kinds of node failures.

Infineon Technologies, *Intern*, Munich, Germany

June 2017—August 2017

- Wrote a library in C++ for the Optiga Trust E, a security chip, and the TLE5012, a magnetic sensor, to communicate with microcontrollers. Results: Optiga Trust E and TLE5012 have both been released
- Integrated both the library codes to the Infineon Arm based XMC processor and made them compatible with Arduino.
- Implemented a cryptographic library, which carries out the public key authentication scheme using the open-source WolfSSL library and the X.509 certificate stored in the Optiga Trust E.

EDUCATION

Wesleyan University, Middletown, CT, USA

May 2020

Master of Arts, Computer Science. Coursework: Artificial Intelligence and Applied Topology. Researching the robustness of large theoretical and real-world networks.

Wesleyan University, Middletown, CT, USA

May 2019

Bachelor of Arts, Double Major: Mathematics and Computer Science: GPA: 4.00/4.00. Graduated *Phi Beta Kappa*.

Phillips Academy, Andover, MA

June 2014

High School Diploma

Recipient of the Davis Scholarship, a three-year full scholarship for academic and extracurricular excellence.

ADDITIONAL EXPERIENCES

Advanced Training in Consulting, Saarbrücken, Germany

November 2021 – February 2022

- Certificate for Advanced Training in Consulting offered by the Universität des Saarlandes (UdS)
- Took part in consulting workshops offered by different international and regional consulting businesses including Ernst & Young, SAP, Orbis

Wesleyan University, *Teaching Assistant and Peer Tutor*, Middletown, CT

September 2016 – May 2020

- Provide individualized tutoring to students taking introductory classes in mathematics and computer science.
- Teaching Assistant for gateway classes to the Math and Computer science majors.

Wesleyan University Varsity Squash, Middletown, CT, USA

September 2018 – March 2020

- Compete for Wesleyan University Men's Squash team on the starting line up at the collegiate level; train and compete 15+ hours a week alongside teammates.

Gap Year, Munich, Germany

January 2015 – May 2015

- Spent five months in Munich, taking an intensive language program at the Deutschkurs bei der Universität
- Passed the Deutsche Sprachprüfung für den Hochschulzugang (DSH) with high honors. DSH is a requirement for international students to study in public German Universities.

SKILLS

Technical: Python, C/C++, Java, Solidity, SQL, Arduino, VBA, SML, HTML

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Soft Skills: Problem Solving, Eager to Learn, Teamwork, Humor, Social Skills

Languages: Fluent in English, German, and Nepali

Other Interests: Table Tennis, Squash, Badminton, Tennis, Racketlon