

# Tu Phan

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## EDUCATION & CERTIFICATES

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<b>Barça Innovation Hub: Introduction to Sports Analytics</b>	<i>February 2025 - Ongoing 2025</i>
Wearable Technology	Grade: 100/100
Art of Communicating The Data	Grade: 88/100
<b>Google Project Management</b>	<i>March 2025 - April 2025</i>
Foundations of Project Management	Grade: 97.27%
Project Initiation: Starting a Successful Project	Grade: 99.57%
Project Planning: Putting It All Together	Grade: 99.50%
Project Execution: Running the Project	Grade: 98.88%
Agile Project Management	Grade: 94.50%
Capstone: Applying Project Management in the Real World	Grade: 96.25%
<b>Ho Chi Minh City University of Technology</b>	<i>September 2012 - April 2017</i>
BE in Computer Engineering	GPA: 7.75/10
Thesis: <i>Predicting Bitcoin Price by Machine Learning</i>	Grade 9.5/10

## PUBLICATIONS & APPEARANCES

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- Jacob Creech, Brian Friel, and Tu Phan. *Solana Cookbook*. Solana Foundation, 2022. URL: <https://solanacookbook.com/vi>
- Duc-Phu Nguyen et al. “Deep Hybrid Models for Forecasting Stock Midprices from the High-Frequency Limit Order Book”. In: *Future Data and Security Engineering. Big Data, Security and Privacy, Smart City and Industry 4.0 Applications*. Ed. by Tran Khanh Dang, Josef Küng, and Tai M. Chung. Singapore: Springer Nature Singapore, 2022, pp. 393–406. ISBN: 978-981-19-8069-5
- Thang Nguyen-Dinh et al. “A Hierarchical Deterministic Wallet Using Ed25519 Digital Signature Scheme”. In: *Future Data and Security Engineering. Big Data, Security and Privacy, Smart City and Industry 4.0 Applications*. Ed. by Tran Khanh Dang, Josef Küng, and Tai M. Chung. Singapore: Springer Nature Singapore, 2022, pp. 240–257. ISBN: 978-981-19-8069-5

## STUDYING COURSES & BOOKS

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- Andrew Ng and Kian Katanforoosh. *CS230 - Deep Learning*. 2019. URL: <https://cs230.stanford.edu/>
- Dan Boneh. *CS155 - Computer and Network Security*. 2019. URL: <https://cs155.stanford.edu>
- Sanjam Garg. *CS276 - Cryptography*. 2014. URL: <https://people.eecs.berkeley.edu/~sanjamg/classes/cs276-fall14/>
- Andrew Ng. *CS229 - Machine Learning*. 2008. URL: <https://see.stanford.edu/Course/CS229>
- Ran Canetti and Ronald L. Rivest. *6.897 - Selected Topics In Cryptography*. 2004. URL: <http://courses.csail.mit.edu/6.897/spring04/materials.html>
- Lawrence C Washington. *Elliptic curves: number theory and cryptography*. CRC press, 2008

## HONORS & AWARDS

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<b>The Grand Prize</b>	Sui x KuCoin Labs Summer Hackathon, 2023.
<b>The Second Prize</b>	Dora Grant DAO Round 3, 2023.
<b>Honor Grant</b>	Superteam Vietnam Instagrant, 2023.
<b>The Fifth Prize</b>	Solana's Riptide Hackathon, 2022.
<b>The Second Prize</b>	Convergence - Serum & Wormhole Hackathon, 2021.
<b>The Second Prize</b>	Solana's Inaugural Hackathon, 2020.
<b>The Second Prize</b>	Tomochain Hackathon, 2019.
<b>The First Runner-up</b>	State of Chain Hackathon, 2018.
<b>The Consolation Prize</b>	Vietnamese Econometrics and Applications Olympiad for Undergraduate Students, 2017.
<b>The Second Prize</b>	Phu Yen Province Competition in Mathematics for High School Students of 12th Grade, 2012.
<b>The Second Prize</b>	Violympic - Phu Yen Province Internet Competition in Mathematics for Secondary School Students of 9th Grade, 2009.
<b>The Consolation Prize</b>	Phu Yen Province Competition in Mathematics for Secondary School Students of 9th Grade, 2009.

## PROFESSIONAL AFFILIATIONS

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<b>Visiting Lecturer</b>	Blockchain Enabled Business, RMIT, 2024.
<b>Lecturer</b>	Optimistic Rollup Bootcamp, 2024.
<b>Speaker</b>	Viction Horizons, 2024.
<b>Mentor</b>	Build on Viction, 2023.
<b>Panelist</b>	GM Vietnam, 2023.
<b>Speaker</b>	BUIDL Vietnam, 2023.
<b>Advisor</b>	Solana Vietnam Coding Camp - Season II, 2022.
<b>Advisor</b>	Vietnam Web3 Coding Camp - Season I, 2022.
<b>Mentor</b>	KO (Kambria Online) Hackathon, 2021.
<b>Mentor</b>	Kambria Quiz/Code Challenge Series, 2020.
<b>Mentor</b>	#1 Vietnam Blockathon, 2017.

## EMPLOYMENT

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**DevRel Lead** April 2024 - December 2024

*Ninety Eight*

- Led the Web3 Indie Vietnam.
- Developed an MPC Federation.

**CTO/Founder** January 2023 - April 2024

*Desig Protocol*

- Desig is a blockchain-agnostic multisig solution.
- The protocol uses MPC and ZK to conduct a Threshold Signature Scheme in trustless environments.

**CEO/Founder** June 2021 - January 2024

*Sentre Protocol / Descartes Network*

- Sentre Protocol is **an incubation platform** for post-launch projects on Solana, which was **acquired by Ninety Eight** in 2023.

- **3 million USD fundraising** from the leading venture capitalists, namely Coin98 Finance, Fundamental Labs, Gate Labs, Kyros Ventures, Spark Digital Capital.
- The product line ranges from DeFi to PriFi, including some significant brands such as **Project Kylan**, **Lightning Tunnel**, **Balansol**, **InterDAO**, and some others.

### Senior Blockchain/AI/ML Developer

February 2018 - June 2021

*Kambria & Omhnilabs Vietnam*

- Developed **UV Engine**, a web-based editor, to communicate with Ohmni robots for planning and task distribution via ROS.
- Researched and developed a vision-based autonomous navigation, named **Xupr** agent. The agent relies only on RGB-based images to make navigation decisions.
- Built **Following Me**, a system that can track the owner and follow him/her.
- Built **FloorNet** based on the UNet model to segment images into floor and non-floor.
- Proposed **Proof-of-Burn** based on hierarchical deterministic keys. The technique was deployed onto several bridges for cross-chain services, mostly between Ethereum and Binance Chain.
- Developed blockchain applications (e.g., an on-page wallet named **Kambria Wallet**), and secured financial services based on cryptography (e.g. a redeeming service named **Distribution Portal**).
- Designed a protocol named **The Innovation Judge Protocol** in game theory to decentralize the task of judgement.
- Conducted research for a privacy e-voting system based on homomorphic encryption, and mix networks.

### R&D Specialist

October 2017 - February 2018

*Bacoor Vietnam*

- Carried out research on Ethereum's scalability.
- Applied decentralized exchange protocols such as **Lightning Network**, **0x**, **Relay Network**, **Polkadot** and others.

### Fullstack Developer

May 2016 - October 2017

*Infinity Blockchain Labs*

- Integrated the OAuth protocol to **Know-Your-Customers (KYC)** systems.
- Built **AltaPolis**, an exchange service.
- Conducted applications on the distributed pseudo-random number generator, proof of knowledge, and zero-knowledge proof.

## SKILLS

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### Programming Languages:

- **General.** Javascript, Typescript, Python, Rust, Golang.
- **Smartcontract.** Solidity, Rust, Circom.

### Project Management:

- **Scrum Agile.** Jira, Notion, Trello.

### Frameworks & Libraries:

- **Web Application:**
  - **Frontend.** NextJS, AngularJS, Remix Run, SolidJS, Ant Design, Material UI, Shadcn, DaisyUI, TailwindCSS.
  - **Backend.** NodeJS, Deno, NestJS, ExpressJS, HonoJS, Gin, Rocket.rs, Actix.

- **Blockchain:**
  - **Ethereum.** Geth, Truffle, Hardhat, Circom.
  - **Solana.** SPL, Anchor.
- **Distributed/Parallel System.** libp2p, Ray, IPFS.
- **ML/AI.** Tensorflow, PyTorch, PyBullet.
- **Robotics.** Arduino, ROS.
- **Database:**
  - **SQL.** PostgreSQL, MySQL.
  - **NonSQL.** MongoDB, FaunaDB.
  - **ORM.** Mongoose, DrizzleORM, SeaORM.
- **Messaging.** ZeroMQ, RabbitMQ, Kafka, BullMQ.

#### DevOps:

- **Version Control.** Git.
- **Deployment.** GitHub, Docker, Terraform.
- **Providers.** AWS, Render, Cloudflare, Google Cloud, Fly.io.

**Linguistics:** Vietnamese (Native language), English (6.0 IELTS, taken in September 2019), Portuguese (Intermediate).

## HOBBIES & SOCIAL ACTIVITIES

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My hobbies include football, working out, and programming. I am also dedicated to charity activities, such as:

- The Full-moon Night CSE in Tra Vinh province, September 2014.
- The Spring Volunteer Campaign in Ho Chi Minh City, July 2014.
- The Green Summer Volunteer Campaign in Tra Vinh province, January 2014.
- The Full-moon Night CSE in Tra Vinh province, September 2013.

## REFERENCES<sup>1</sup>

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### **Dr. Nguyen An Khuong**

*BE Thesis Reviewer, Academic Mentor*

Faculty of Computer Science and Engineering,

Ho Chi Minh City University of Technology.

286 Ly Thuong Kiet Street, District 10, HCMC, Vietnam.

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### **Nguyen Duc Thai, Ph.D.**

*BE Thesis Advisor*

Head of Department of Computer Systems and Networking,

Faculty of Computer Science and Engineering,

Ho Chi Minh City University of Technology.

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<sup>1</sup>THE LIST IS SORTED IN ALPHABETICAL ORDER.

***Dr. Thuc Vu***

*Former Employer*

Co-Founder / CEO of Kambria & Ohmnilabs Vietnam

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