

# Chi-Tai Vong

vchitai.github.io

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## EDUCATION

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### • VNUHCM - University of Science

Ho Chi Minh City, Vietnam

*Bachelor of Science in Information Technology (Honor Program); GPA: 8.82/10*

*2015 - 2019*

## EXPERIENCE

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### • BeGroup JSC

Ho Chi Minh City, Vietnam

*Software Engineer Lead*

*May 2022 - Present*

- **BePhoto**: Maintain and improve performances for in-house file uploading and distributing PaaS.
- **BeWebRTC**: Maintain and improve performances the in-house VoIP PaaS.
- **BeExam**: Design and implement in-house SaaS for creating, assigning and evaluating test and practice for user segments or directly assigned.
- **BeGateways**: Maintain and improve performances for gateway routing hubs BFF for clients.

*Senior Software Engineer*

*Feb 2021 - May 2022*

- **BeEgg**: Design and implement in-house Go project boilerplate code generator.
- **BeLab**: Design and implement in-house server-side Go SDK.
- **BeChatBox**: Design and implement in-house real-time messaging PaaS, come with a built-in SaaS, supporting customer communication.
- **BeCallCenter**: Design and implement WebRTC call dispatching SaaS for customer communication.
- **BeQuesting**: Design and implement in-house case management SaaS for manage customer's ticket, building specifically to replace the old Salesforce CRM.
- **BeLeadOnboarding**: Design and implement in-house driver onboarding flow management, supporting a new driver complete the registration process.
- **BeClocking**: Design and implement in-house staff performance tracking and evaluation.
- **BeMailer**: Design and implement in-house PaaS, centralizing mailing template parsing, mails' sending and receiving activities.

### • Poker Age - F6 Galaxy

Ho Chi Minh City, Vietnam

*(Part-time) Backend Software Engineer*

*Nov 2021 - Apr 2022*

- **Game core service**: Rework the game state syncing mechanism and revamp Websocket manipulation.
- **Notification & Inbox service**: Design and implement in-game push notification and user inboxes feature.
- **Call service**: Design and implement in-game VoIP feature with WebRTC technology.
- **Chat service**: Design and implement in-game real-time messaging feature.

### • Onme - ADMON

Ho Chi Minh City, Vietnam

*(Part-time) Backend Software Engineer*

*May 2021 - Sep 2021*

- **Media Transcoding Automation Pipeline**: Design and implement this core project in Content Producing Services, that helps transcode input video into a streamable format, is scalable in multiple pods, using multiple GPU cores.
- **User Activity Service**: Design and implement the core service that continuously records user activities at high velocity like comments, likes, subscribers of content like channel, video or streaming party, playlist, watch history, followers of a user. The service has achieved the initial requirements of being able to serve for approximately 500RPS with only 3 pods running.

### • Teko Vietnam

Ho Chi Minh City, Vietnam

*Backend Software Engineer*

*Jul 2018 - Mar 2021*

- **Tekone**: Develop the new Go monorepo with Bazel build system, centralizing all the services rewritten in Go
- **Tekit**: Develop in-house Go SDK and boilerplate generation
- **Order Capturing & Shopping Cart Management**: Design and implement split the previous project into small moving parts for future development
- **Order Management V2**: Design and implement new order system serving a multi-channel context for online, mobile, agent, and telesales channels. Our target was to centralize all the order-related business into a single core, including order creating, placing, and after-sale management, handling the payment, returning payment, and goods status tracing update

- **Order Management V1:** Develop new order management system, helps scale up Phong Vu's business size from 10 offline stores to over 30 stores across our country by the end of 2019
- **Market Eyes:** Develop market monitoring tools with crawling and analyze toolkits to support the business team operation.
- **Integration Service:** Develop an adapter for replacing the old accounting system with a completely new one written in Python
- **VinAI Research** Ho Chi Minh City, Vietnam  
*(Part-time) Android Developer* Oct 2019 - Dec 2019
  - **VSmart FaceID:** Research on how to compress and compile the NCNN library on the arm7 and arm8 architect, to reduce the main application size; Managed to cut it by half in size. Build demo applications for Vin AI's conference publications at NeurIPS and internal demo.
- **AI Lab - VNUHCM - University of Science** Ho Chi Minh City, Vietnam  
*Contractor* Jun 2017 - Nov 2018
  - **Fundamental Python course:** Develop a course that is oriented for student at all grade who wanted to learn the programming language Python. My teammates and I together composed the course and publish a corresponding guidance book.
  - **KhanViet.org:** Develop a MOOC platform based on the EDX platform, which provides a place where the teacher can submit their lectures and the student can find them. My main job is to develop a coding grader system, running the sandbox test evaluation for student's coding assignment. Also, I support generating teaching reports for the project weekly.
  - **VnSigma.net:** Develop a tutor website, matching the tutor, who is willing to teach and the students, who want to improve their skills...
  - **VietCap.org:** Build the Vietcap website, which helps to crawl and process Youtube videos to create automatic subtitles for demo our laboratory's main product, The Southern Voice – VOS, a self-trained Vietnamese specific model for speech to text conversion

## PROJECTS

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- **Google Cloud SDK PubSub Emulator:** Dockerize Google Cloud SDK PubSub Emulator for local development
- **X-Crafter:** A go template breaker and builder helps you easily building a go project code generation
- **LogrGorm2:** A logr logging driver for gorm v2
- **Gomw:** A framework for fasten creating Go HTTP Middleware
- **Go bootstraper:** A bootstraper that help you create a standarized go project at lightning speed
- **JsonCase:** A go package for converting json case to various cases
- **The New High-Performance Face Tracking System based on Detection-Tracking and Tracklet-Tracklet Association in Semi-Online Mode:** Despite recent advances in multiple object tracking and pedestrian tracking, multiple-face tracking remains a challenging problem. In this work, the authors propose a framework to solve the problem in semi-online manner (the framework runs in real-time speed with two-second delay).
- **Telegraf Helm Chart:** Template update and bugs fixed for Influx Telegraf chart.
- **Elasticsearch Vietnamese Analysis Elasticsearch Vietnamese Analysis:** Fix some bugs and upgrade the project to keep compatibilities with new ElasticSearch version
- **Python programming self-study Python programming self-study:** A book for python basic learner
- **Video segmentation using keywords Video segmentation using keywords:** At DAVIS-2016 Challenge, many state-of-art video segmentation methods achieve potential results, but they still much depend on annotated frames to distinguish between background and foreground. It takes a lot of time and efforts to create these frames exactly. In this paper, we introduce a method to segment objects from video based on keywords given by user.