Ufuktan Yıldırım

ufukty@gmail.com | ufukty.com | github.com/ufukty | linkedin.com/in/ufukty

SUMMARY

MSc in Computer Engineering with 10+ years of experience spanning full-stack development, developer tooling, and independent product ventures. Started with peering a Bachelor's capstone project that evolved into a independent venture; an ambitious social utility app combining mobile and backend development with face-recognition features. Paused this to focus on another venture, a leaner project on personal product management tool area, reusing technical foundations while producing impactful open-source developer tools (e.g., Gohandlers, Gonfique, Dim). Published a master's thesis on genetic programming and explored network science through simulations and data visualizations (e.g., Reddit Galaxy, featured with 5k+ upvotes). Passionate about bridging deep technical execution with product strategy; from backend architectures and web application security to branding, documentation, and market validation. Motivated to contribute to B2C software with high user engagement and to help shape early-stage product growth.

EDUCATION

MSc, Computer Engineering, Ankara University, Turkiye, GPA: 3.91   **2020-2024**

BSc, Computer Engineering, Ankara University, Turkiye, GPA: 3.15   **2014-2018**

EXPERIENCE

Founder & Product Developer, Ind. Venture II (Pre-Seed/Unfunded)   **2021-Present**

Codebase on GitHub

- Conceptualized a commercializable software based product.
- Pivoted from a prior venture to pursue a leaner concept in task management tooling.
- Paused at prototype stage after market and technical validation.
- Gained hands-on experience in early-stage product design, developer tooling, and the challenges of startup execution.
- Designed the UI prototypes in Sketch.
- Implemented crucial software components using Go and JavaScript, such as:
  - a layout engine that supports dynamically sized items, animated entries/exits and reusing allocated UI components for fixed web app memory consumption

- a <u>document model</u> supports versioning for eliminating the need for user training, supports collaboration between subtrees owned by users, scales with O(nlogn) for storage and O(logn) for checkouts
- a <u>frictionless rate limiter</u> for API based on gradually increasing machine challenges for repeated calls based on IP addresses
- a <u>DSA for histogram aggregation</u> for efficient presentation of real time performance metrics
- Built developer tools (e.g., Gohandlers, Gonfique) as byproducts of the main development process to improve reusability and published to reduce tooling disconnection.

Founder & Product Developer, Ind. Venture I (Pre-Seed/Unfunded)   **2018-2020**
- Explored market opportunities in social utility applications.
- Developed iOS demo apps (frontend-only prototypes with demo data) to showcase exclusive product views and interactions.
- Gained hands-on experience in iOS development (Swift, UIKit) and rapid prototyping.

Front-End Web Development Internship, Başarsoft, Ankara, Turkiye   **July-August 2017**
- Collaborated with the design office to maintain and enhance a WordPress-based company website.
- Troubleshot a broken reCAPTCHA on a form page—discovering that multiple activation calls were causing the failure—and implemented a fix.
- Created a lightweight JavaScript library that renders stylized bar graphs with a smooth, CSS-based count-up animation for visitors.

OPEN SOURCE PROJECTS

Gonfique   **gonfique.com**
- Highly customizable config type generator with both CLI and web interface.
- Supports type modifications with YAML configuration, solving schema-change fragility and limitations of untyped access
- Competes with untyped maps and basic type generators.

Dim   **Visual Studio Marketplace**
- VS Code extension that improves code readability by reducing noise in redundant blocks.
- Robust editor lifecycle tracking, with reusing resources everywhere possible.

- Simplifies onboarding with disabling some advertised behaviors on common new user actions.
- Published on the official marketplace (100+ installs).

Gohandlers   **gohandlers.pages.dev**

- Code generator for type-safe binding de/serialization, listing handlers in a service and stubs for Go clients.
- Improves backend developer confidence by replacing reflection with compile-time checked type-safe bindings.

RESEARCH

Master's Thesis   **Ulusal Tez Merkezi, github.com/ufukty/tde**

Ankara University, Turkiye

- Conducted a 2 year long R&D process on discovering the problems on using Genetic Programming to evolve test-passing Go functions.
- The codebase shared as tooling for future research.

A simulation for Diffusion of Innovations   **github.com/ufukty/doi**

Ankara University, Turkiye

- Built agent-based model analyzing node influence in adoption spread.
- Gained experience on using NetworkX and Pyplot in a Python script.

A network visualization of Reddit   **Web Archive, github.com/ufukty/reddit-galaxy**

Ankara University, Turkiye

- Developed a Python/Matplotlib script to visualize the Reddit Snap dataset.
- Used advanced post processing for impressive visual for social media.
- Highlights subreddit interlinking and community dynamics.
- Shared on r/dataisbeautiful (5k+ upvotes, front page).

Bachelor's Capstone Project, Server-Client app

Ankara University, Turkiye

- Collaborated with a peer on a PHP backend; independently built the iOS client in Swift.
- Gained hands on experience on face detection and face recognition pipelines.
- Provided the foundation for Independent Venture I which was mainly a commercial rebuilt with higher scalability and broader use.

SKILLS

Primary:

Domains:	Backend, Frontend, CI, IaC
Languages:	Go, Bash, JavaScript (TypeScript), SQL, Python, CSS
Frameworks/Libraries:	VS Code Extension API, Matplotlib, NetworkX
Target systems:	Linux (Ubuntu), MacOS
Databases:	PostgreSQL
Cloud & systems:	DigitalOcean (VPS, VPC, Volume), Cloudflare (Proxy, Pages, Web Analytics)
Dev tools:	GNU tools, Make, Sqlc, Git, GitHub, Terraform, Mermaid
Prototyping:	Sketch (Mac)
Research areas:	Genetic Programming, Network Science
Miscellaneous:	Microsoft Monaco, Go Web Assembly, OpenVPN

Also experienced:

Domains:	Data Visualization, Network Visualization and Simulation, iOS App Development
Languages:	Swift, PHP, C#
Frameworks:	UIKit (Apple), React, ASP.NET MVC
Dev tools:	Ansible, Packer, Docker