

## Ufuktan Yıldırım

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### SUMMARY

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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

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

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

### EXPERIENCE

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**Founder & Product Developer**, Independent Venture II (Pre-Seed) **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 document model supports versioning for eliminating the need for user training, supports collaboration between subtrees owned by users, scales with  $O(n \log n)$  for storage and  $O(\log n)$  for checkouts
- a frictionless rate limiter for API based on gradually increasing machine challenges for repeated calls based on IP addresses
- a DSA for histogram aggregation 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**, Independent Venture I (Pre-Seed) **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, Türkiye **July-August 2017**

- Collaborated with the design office to maintain and enhance a WordPress-based company website.
- Troubleshooted 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

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**Gonfique** **[gonfique.com](https://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](https://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**

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### **Master's Thesis**

**Ulusal Tez Merkezi, [github.com/ufukty/tde](https://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](https://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](https://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

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### Primary:

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

### Also experienced:

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