Bartu Atabek

Researcher | HI Designer | Software Engineer

@ batabek@metu.edu.tr ⬡ bartuatabek in bartu-atabek 🎓 Bartu Atabek

Persevering researcher specializing in building and occasionally designing exceptional applications, interfaces, and everything in between.

Research & Academics

🎓 Middle East Technical University

● Researcher - METU-TAF MODSIMMER   Mar 2023 – present

- Conducted research on pilot cognitive workload, integrating neurophysiological and simulator data to optimize pilot training.
- Managed neurophysiological data collection from **150+** Air Force cadets, assembling and configuring **EEG, ECG, VR, and GSR** systems.
- Supported the development of hypoxia prediction algorithm by analyzing in-flight air quality data and comparing it to baseline measurements during both normal and hypoxic conditions.

● Master of Science - MSc, Cognitive Science   Oct 2021 – present

Thesis: *Enhancing Brain Computer Interfaces through Textural Steady State Motion Visually Evoked Potentials* – Supervised by **Murat Perit Cakir**

Related Coursework: Research Methods and Statistics for Cognitive Science, Collective Intelligence, Cognition and Machine Learning, Cognitive Neurophysiology

🎓 Bilkent University

● Researcher - BILSEN Research Group   Sep 2020 – Jul 2021

- Led pioneering research in advanced visual code review tools at Bilkent University's Software Engineering and Data Analytics Research Group, while providing expertise in HCI and related areas.

● Bachelor of Science - BS, Computer Science   Sep 2016 – Jun 2020

Related Coursework: Computer Networks, Image Analysis, Parallel Computing, Application Lifecycle Management, Cloud Computing and Mobile Applications, Interface Design Studio, Introduction to Psychology, Essentials of Photography

Experience   See all

Mavvi

● Software & Product Engineer II   Mar 2023 – May 2023

- Innovated by devising prototypes and design systems for cutting-edge web3 applications, primarily "talently.app".
- Orchestrated the architecture of Next.js applications, spearheading the implementation of interface components with React, TypeScript, and Tailwind CSS.

● Software & Product Engineer   Mar 2022 – Feb 2023

- Led mobile-first web app design using React, Next.js, and Tailwind, prioritizing user experience.
- Constructed robust backends with Python, Fast API, and Postgres SQL for optimal application functionality.
- Integrated technical expertise with user-centric design principles, ensuring harmonious solutions.
- Orchestrated end-to-end web3 solutions to address evolving technological needs.

MilSOFT Software Technologies

Software Engineer   Feb 2021 – Mar 2022

- Designed and maintained Tactical Data Link Systems, enabling real-time data exchange using C++ and distributed DDS.
- Led modernization of legacy systems with upgrades, language enhancements, and architectural revisions.
- Applied Scaled Agile Framework (SAFe) and Jira, contributing to 10+ contract projects and 4 successful deliveries with CMMI 5 standards.

Projects   See all

Neverwhere ›
Multiple Award Winning Senior Design Project & iOS Application   Jan 2019 – Jun 2020

- Lead a team of 4 engineers, responsible for product management, design and iOS implementation.
- Spearheaded the development of core features, i.e. AR moments, memories, auth.
- Maintaining scalable databases, clustering algorithms, and UI/UX features implemented in Swift and TypeScript.

Skills

- **Research**

  Cognitive Neuroscience · EEG · ECG · GSR · fNIRs · LSL · MNE · Psychopy

- **Industry Knowledge**

  OOP · UX Research & HI Design · RDBMS · Scrum · Presentations · Vision · Leadership · Full-Stack Development · RESTful APIs · UML · Pitching · web3

- **Programming Languages**

  Swift · Java · JavaScript · Python · C/C++ · TypeScript · MATLAB · SQL · LaTeX

- **Libraries & Frameworks**

  SwiftUI · react · Next.js · GraphQL · SpringBoot · Maven · JavaFX

- **Tools & Platforms**

  Firebase · AWS · GCP · Vercel · Docker

- **Design**

  Sketch · Figma · Framer · Adobe CC

Achievements

🏆 **Visual Designer Award, CSFair'20** ›

Given to the student with the highest ability to produce nice-looking, smooth, user-friendly, and state-of-the-art graphical user interfaces.

🏆 **Wide Impact Project Award, CSFair'20** ›

Awarded to my senior design project *Neverwhere* for the project that reaches the widest audience.

🏆 **1st Place in Elevator Pitch, 13th Ankara Startup Battlefield** ›

Took 1st place in the Elevator Pitch category and also, won a secondary award to participate in the İş Bank's Workup program.

Certifications   See all

❇ **User Experience Research and Design Specialization, Coursera** ›

University of Michigan

❇ **Building Scalable Java Microservices with Spring Boot and Spring Cloud, Coursera** ›

Google Cloud

❇ **Deep Learning Specialization, Coursera** ›

deeplearning.ai

Contributions

Psychopy & Psychopy Vision Toolbox ›

Open source code contributions to Psychopy & Psychopy Vision Science repositories.