Goce Dimitrov

Full Stack Developer

🏠 gocedimitrov.com ✉ contact@gocedimitrov.com ⊙ github.com/goceee

Experience

Full Stack Developer @ Freelance

January 2020 - Present

* Personal
  * Designed and developed my personal portfolio website
  * Improved and added new functionality to my BVI-SVQA software

* Open University for lifelong learning
  * Built a website for a Open University for lifelong learning, that allows online assessment of candidates and storing and managing a candidate database

* Remote
  * Part of Agile remote teams working on projects from Netherlands **(Capptions)** and United States **(Aequus Ads)**
  * Technologies used: **React/Typescript** (Next.JS, Blitz.JS, Docusaurus), **Node.JS, PostgreSQL, GraphQL, Prisma, Tailwind CSS, Styled Components, Jest, Cypress, Github Actions**
  * Responsibilities: Implementing new features, designs, bugfixes, database schema modeling, setting up private and public APIs using REST and GraphQL, DevOps and code reviews

Video Quality Research Intern @ Bristol Vision Institute

July 2019 - September 2019 // Bristol, UK

* Upgrade and manage the BVI-SVQA software that I developed during my final year
* Compression rate, speed, quality testing and evaluation of different codecs used for encoding videos for the subjective video quality experiments
* Schedule and perform subjective video quality experiments using BVI-SVQA, to assess video compression quality and compare the subjective results with objective data
* Subjective and objective data processing and analysis using various statistical methods coded in Python and Matlab

Projects

Online Assessment Website

A full-stack website that allows anyone in need of a vocational degree to apply, upload the necessary documents and if their application is approved to proceed with online payment and complete a written and oral (video call) examination. It also has full administration capabilities for users management. (Please contact me for more information)

BVI-SVQA

Desktop application developed using ElectronJS, HTML, CSS, Python, VMAF, FFMPEG and MPV, that allows users to prepare and conduct subjective experiments for assessing the quality of videos. Additionally, it calculates the objective quality metrics of videos, does post-processing on the subjectively gathered data and plots the subjective and objective results.

Qloud App

A cloud quiz application built using Python, Flask, Javascript, HTML, CSS, Docker and deployed using Kubernetes, that lets users log in with their email and play a quiz game with an AI or an actual person. This was a collaborative project in which I worked on development of the Frontend, linking it to the database and publishing it on Google Cloud.

Autonomous Car Control System

A system developed using VHDL and C++. The main goal of this system is to be programmed on an FPGA and utilise its amazing parallelisation capabilities in order for a user or AI to control a Multi-Motor Electric Vehicle (EV) equipped with additional sensors (Optocoupler, Ultrasonic) in real-time.

Education

MEng Computer Science and Electronics @ University of Bristol

2014 - 2019 // United Kingdom

Main Skills

Programming Languages

JavaScript, TypeScript, HTML, CSS, PostgreSQL, GraphQL, MongoDB, Python

Libraries & Frameworks

React, NextJS, BlitzJS, Tailwind, NodeJS, Cypress, Jest, Bootstrap, jQuery, Material UI, Express, Prisma, Docusaurus

Tools & Platforms

Windows, Linux, macOS, Google Cloud, Git, GitHub Actions, Latex, Webpack, Docker, Kubernetes, Netlify

University Skills

Programming Languages

Matlab, C, C++, Java, VHDL

Libraries & Frameworks

Electron, Flask, OpenCV

Tools & Platforms

FFMPEG, VMAF

Design

Figma

Papers

Zhang, F., Katsenou, A. V., Afonso, M., Dimitrov, G., Bull, D. (March, 2020). Comparing VVC, HEVC and AV1 using Objective and Subjective Assessments. [Preprint]

Katsenou, A. V., Dimitrov, G., Ma, D., Bull, D. (February, 2020). BVI-SynTex: A Synthetic Video Texture Dataset for Video Compression and Quality Assessment. IEEE Transactions on Multimedia. [Published]

Spoken languages

English (perfect)

German (learning in progress)

Macedonian (native)

Serbian (perfect)

Bulgarian (good)