Vitalii Zhukov

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Researcher	**Computational Physiology Lab** **Affective and Data Computing Lab**	2019 – Present

- Conducted research with a primary focus on analyzing human performance within complex systems, contributing to a deeper understanding of environmental, cognitive, and behavioral aspects.
- Led a comprehensive research project that investigated the fundamental principles governing success in intensely competitive settings, resulting in valuable insights for optimizing performance.
- Designed and developed a sophisticated probabilistic human performance estimation methodology, enhancing the accuracy of performance predictions and enabling data-driven decision-making.
- Spearheaded the development of automated tools and processes to streamline data collection, processing, quality control, and statistical analysis, significantly reducing manual effort and enhancing research efficiency.

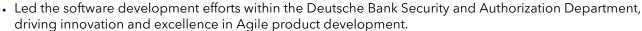| Graduate Teaching Assistant	**University of Houston**	2019 – Present

- Statistical methods in research (R, Python) Designed lab curriculum, instructed hands-on data analysis.
- Ubiquitous computing (Swift) Implemented a web system for students' performance and feedback.
- Data Structures and Algorithms, Introduction to Programming (C++) Developed practical class materials.

Project / Delivery Manager	**Luxoft, A DXC Technology Company**	2018

- Led the software development efforts within the Deutsche Bank Security and Authorization Department, driving innovation and excellence in Agile product development.
- Collaborated closely with customer managers to shape the product vision, develop strategic plans, and ensure the successful delivery of projects, aligning with customer requirements and objectives.
- Effectively scaled the department's engagement, orchestrating a substantial increase from 18 full-time employees (FTE) to 53 FTE, optimizing resource allocation and productivity.
- Demonstrated strong interpersonal and leadership skills by effectively communicating with, coaching, and coordinating a diverse team of more than 50 international employees spanning four countries, fostering a collaborative and high-performing work environment.

Software Engineer / Team Lead	**GS Labs, General Satellite Group**	2010 – 17

- Progressively advanced through professional development ranks from Technical Support Engineer (TSE) 2 to TSE 3, ultimately achieving the roles of Software Engineer (SE), Team Lead, and Chief of Automation Department, showcasing dedication and expertise in both technical and managerial roles.
- Played a pivotal role in developing internal software and hardware solutions tailored to enhance the Digital Video Broadcasting infrastructure, contributing to increased operational efficiency and system reliability.
- Pioneered the establishment of the Automation Department, taking charge of continuous integration/continuous delivery (CI/CD) and monitoring tools, streamlining workflows, and fostering a culture of automation to improve productivity and performance.
- Stack: Python3, Celery, Tornado, Redis, Postgres, Bash, Debian GNU/Linux

Doctor of Philosophy (Ph.D.)	**University of Houston**	[Exp.] Dec. 2023

- **Computer Science,** Dissertation topic 'Performance in Complex Systems of Experts'
- CGPA 3.87

Master of Science (M.S.)	**Peter the Great St. Petersburg Polytechnic University**	2012

- **Mechanical Engineering,** Thesis topic 'Vibro Jaw Stone Crusher'

Recent Personal Projects

Tech Stack

- 'Responder' app (2023) LLM based email processor & generator.
- 'ACDC Lab' website (2022)
- 'iOrator' app (2022) Real time speech recognition and coaching.
- 'Scholar of the Day' app (2020 - 2021) Interactive calendar.
- 'HQC', (2020) Data quality control tool.

Python (openai_API, json, googleapi)
JavaScript, PHP (Joomla)
Swift (UIKit, Speech, NaturalLanguage)
Swift (UIKit, QuickLook, UserNotification)
R (dplyr, ggplot2, plotly, poweRlaw)

Leadership Activities, Professional Services and Awards

- University of Houston (UH), NSM College, Member of Graduate Student Advisory Board   2022
- UH, Member of Grievance Committee   2023
- UH, Member of Academic Honesty Committee   2021, 22
- UH, President of the Computer Science Graduate Students Association   2019 – 21
- GS Labs, General Satellite Group, Employee of the year   2016

Languages, Technologies & Frameworks

- Python3; R; C++; Swift; Bash; PowerShell; SQL.
- Atlassian Jira/Confluence; Redmine; Git; PyCharm; Xcode; RStudio; LaTeX; Zabbix; Grafana; Database Workbench; MSSQL; Oracle; MySQL (MariaDB); Postgres.
- Data Analysis; Statistical Analysis; Data Visualization; Data Wrangling; A/B Testing; Quality Control.
- SDLC; Agile; Scrum; Waterfall; ITIL; PRINCE2; Business Process Management; Risk Management; ISO Standards (9001, 21500, 31000).

Publications and Conference Presentations

- Zhukov, V. et al. (2022) Convergence in Affective Sciences, Conference ISRE 2022, LA CA   [PUBLISHED]

- Zhukova, M. A., Li, N., Zhukov, V., & Grigorenko, E. L. (2023). A Dimensional Approach to Discrepancy in Parenting Styles in Russian Families. Children, 10(8), 1367.   [PUBLISHED]

- Zhukov, V., Pavlidis, I., Dukes, D. (2022) Quantitative History of Affectivism   [UNDER REVIEW]

- Zhukov, V., Tsiamyrtzis, P., Pavlidis, I. (2020) Modeling of Competitive Human Performance   [IN PROGRESS]

- Personal technical blog, focus: LLM, API, prompt engineering, vvzhukov.github.io   [BLOG]