Amirhossein Bayani

Material Modeling Researcher | Junior Full Stack Developer

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• github • linkedin • google scholar

Executive Summary

Results-driven Material Scientist with a decade of experience specializing in simulation and modelling. Expertise in Nanoelectronics Engineering and Solid-State Physics. Besides, Junior Software Developer with a Diploma in Full stack Software Development from the Code Institute. Proficient in Density functional theory, HTML, CSS, Javascript, Python. I am a valuable team-player with strong communication skills and effective problem-solving ability. I am eager to gain entry into the tech industry into an exciting development team where I can grow and contribute!

Education

August 2023–Current	**Diploma in Full Stack Software Development** Code Institute - Dublin, Ireland - (Credit Rated by University of West of Scotland)
September 2014–September 2017	**PhD in Nanotechnology Engineering** Kashan University, Iran
September 2010–January 2013	**Master of Physics (Solid State Physics)** Ferdowsi University of Mashhad, Mashhad, Iran
September 2006–August 2010	**Bachelor of Physics** Ferdowsi University of Mashhad, Mashhad, Iran

Technical Skillset

Material Modeling:	**DFT, VASP, Synopsys QuantumATK, High Performance Computing**
Technologies:	**HTML5, CSS3, JavaScript, Python**
Databases:	**MySQL, Postgres**
Frameworks:	**Django, jQuery, Bootstrap**
Version Control:	**Git, Github, Heroku, Codeanywhere, Gitpod**

Portfolio projects

1. **Nanotechnology for Kids -** Educational site to teach nanotechnology to kids using very basic knowledge. **Technologies Used** - HTML5 and CSS. **GitHub - https://github.com/teman67/Project-1**

2. **Online Quiz -** Online quiz where users can test their knowledge in the field of Nanotechnology. **Technologies Used** - HTML5 , CSS and JavaScript. **GitHub - https://github.com/teman67/Project_2**

3. **Adventure text-based Game –** A text-based game where users can play the game by typing texts into the terminal. **Technologies Used** - HTML5 , CSS, Python, and Heroku. **GitHub - https://github.com/teman67/Project_3**

4. **Online Resume –** My online resume where employers can see my background and skills. **Technologies Used** - HTML5 , CSS, Bootstrap, JavaScript, and Python. **GitHub -** https://teman67.github.io/Bootstrap-Resume/index.html

Work Experience

July 2021 - July 2023   **Scientific Researcher**

Fraunhofer Institute for Mechanics of Materials IWM, Freiburg, Germany

- Computational modelling of surface and interface of Perovskite Solar Cell and electron/hole transport layers using density functional theory (DFT) and method beyond DFT
- Studying the point defects in semiconductors and Perovskite materials

September 2018 - September 2020   **Postdoc Researcher**

Angstrom Lab, Uppsala University, Uppsala, Sweden

- Simulation of Au intercalation on SiC/Graphene using DFT
- Studying the spin-orbit coupling effect on Graphene/Au

Additional Information

- Fluent English, Fluent Persian, Beginner German, Beginner Swedish
- Expert in Office Package

Interests

- Following Tech News and Trends
- Playing Chess and Volleyball
- Cycling and Travelling
- Reading Books
- Watching Movies and Series