

# Mohammad Helaly

[mohammad.helaly@outlook.com](mailto:mohammad.helaly@outlook.com) | +49 160 95893613 | Passau, Germany | [GitHub](#) | [Portfolio](#) | [LinkedIn](#)

## EDUCATION

<b>M.Sc. in Computer Science</b> <i>Universität Passau</i>	<i>April 2025 - Present</i> <i>Passau, Germany</i>
<b>B.Sc. in Computer and Communications Engineering</b> <i>Faculty of Engineering, Alexandria University</i>	<i>September 2019 - July 2024</i> <i>Alexandria, Egypt</i>
<b>IGCSE</b> <i>AIS - Alexandria International School</i>	<i>Graduated in June 2019</i> <i>Alexandria, Egypt</i>

## WORK EXPERIENCE

<b>Full-Stack Developer</b> <i>TWENTY Studio</i>	<i>November 2025 – Present</i> <i>Berlin, Germany</i>
<ul style="list-style-type: none"><li>Developed and maintained full-stack web applications using SvelteKit and Payload CMS.</li><li>Created and contributed to full-stack projects, integrating front-end and back-end technologies.</li><li>Delivered features and milestones on schedule, turning requirements into high-quality implementations.</li><li>Employed software development best practices, ensuring code quality, scalability and maintainability.</li><li>Contributed to all stages of the development lifecycle for several projects, from design to deployment.</li><li>Conducted and coordinated code reviews, testing, CI/CD and other facets of software development.</li><li>Worked in agile teams, engaging in sprint planning and daily stand-ups for iterative development.</li></ul>	
<b>Software Engineer</b> <b>Junior Software Engineer</b> <i>VAES.ai</i>	<i>July 2025 – October 2025</i> <i>July 2024 – June 2025</i> <i>Dubai, UAE</i>
<ul style="list-style-type: none"><li>Developed rich front-end, animation-heavy websites using React.js and Next.js.</li><li>Worked on serverless back-ends and database management for several company projects.</li><li>Built software tools and plugins with Python, adhering closely to design patterns and SOLID principles.</li></ul>	
<b>Software Developer</b> <i>InstaCódigo</i>	<i>January 2024 – June 2024</i> <i>Dubai, UAE</i>
<ul style="list-style-type: none"><li>Developed cross-platform, user-friendly mobile applications using React Native.</li><li>Built robust, highly scalable web applications using Next.js while employing SEO techniques.</li><li>Utilized Solito to develop both Expo and Next.js apps for web and mobile, all with React Native.</li></ul>	
<b>Navigation System Engineer</b> <i>Alex Eagles Aero Design</i>	<i>September 2023 – December 2023</i> <i>Alexandria, Egypt</i>
<ul style="list-style-type: none"><li>Engineered software for fully autonomous drone navigation, enabling self-flying capabilities.</li><li>Designed deep learning models for precise computer vision and autonomous navigation capabilities.</li><li>Developed scripts with the DroneKit API to navigate to waypoints obtained from deep learning models.</li></ul>	
<b>Intern Data Scientist</b> <i>SLB - Schlumberger</i>	<i>July 2023 – August 2023</i> <i>Cairo, Egypt</i>
<ul style="list-style-type: none"><li>Cleaned and preprocessed large datasets thoroughly, while conducting exploratory data analysis.</li><li>Developed machine learning models to extract valuable insights from complex datasets.</li><li>Worked on setting up and administering Linux servers and deploying enterprise-scale databases.</li></ul>	

## TECHNICAL SKILLS

---

### Programming Languages

- Python, C, C++, Java, HTML, CSS, JavaScript, TypeScript, PHP, GoLang, Bash and MATLAB.

### Tools, Technologies and Frameworks

- **Software Development:** React.js, React Native, Next.js, Node.js, Express.js, Svelte.js, SvelteKit, SST, Flask, MongoDB, MySQL, PayloadCMS, Socket.io, Java Swing and PySide6.
- **Data Science and Machine Learning:** Pandas, NumPy, Matplotlib, Seaborn, Scikit-Learn, PyTorch, TensorFlow, Keras, Jupyter Notebook and Dataiku DSS.
- **DevOps and Cloud Development:** Git, Docker, Linux Shell and AWS.

## ACHIEVEMENTS

---

**Global Winner of the NASA Space Apps Challenge** | [Global Winner](#) | [Lunar Trek](#)  
NASA

*January 2024  
International*

- Won the 2023 NASA Space Apps Challenge globally out of over 8700 teams.
- Awarded the Best Use of Science Award for building Lunar Trek.

**National Competitor in the SITA Ideation Hackathon** | [Helprr](#)  
*SITA - Supporting Innovation and Transformation Academy*

*December 2023  
Cairo, Egypt*

- Competed nationally in the 2023 SITA Ideation Hackathon.
- Reached the pre-incubation phase and achieved high honors for building Helprr.

## PROJECTS

---

### Online Learning Platform | [GitHub](#) | [Learnly](#)

- Developed an online learning platform for students and instructors to enroll in and create courses, using React.js, Node.js, Express.js, MongoDB and Socket.io.
- Built features such as a course marketplace, live meetings, real-time chatting and a course creator.

### Blindness and Deafness Support App | [GitHub](#)

- Developed a mobile app designed to support blind and deaf people using React Native.
- Utilized a pre-trained deep learning model for visual object detection in live video feeds from the phone camera and implemented text-to-speech and speech-to-text functionalities.

### Visual Question Answering | [GitHub](#) | [NeuralVisions](#)

- Developed a web app for answering open-ended questions about images, reaching 68% accuracy and 80% answerability, using Python, Flask and React.js.
- Designed a deep learning model incorporating the OpenAI CLIP encoder, trained on the VizWiz dataset.

### Lunar Seismic Event Visualization | [GitHub](#) | [Lunar Trek](#)

- Developed web app to visualize lunar seismic events, sourced from NASA's Apollo Seismic Event Catalogue, using React.js and Unreal Engine 5.
- Conducted time series analysis on seismic data and presented visualizations on a 3D model of the moon.

## EXTRA-CURRICULAR ACTIVITIES

---

**German Teaching Assistant**  
*MIG Academy*

*July 2022 – August 2022  
Alexandria, Egypt*

- Prepared lectures and communicated information to students using interactive learning techniques.
- Planned and scheduled course contents and designed placement tests and assessments.
- Assisted in grading assignments and tracking student progress throughout the course.
- Provided feedback on student presentations and learning outcomes.