Hoodad Farhad

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Full-Stack Developer

EDUCATION

MSc in Computer Science | University of Guelph, Guelph ON   *Sep 2022 - Sep 2024*
- **Thesis:** Human-Computer Interaction | **GPA:** 3.94/4.00

B.Sc. in Software Engineering | Azad University Central Tehran Branch, Tehran IR   *Sep 2016 - Dec 2021*
- **GPA:** 3.67/4.00

Relevant courses and Awards:

Mobile App Development (A+) • Data Structures & Algorithms (A+) • Object-Oriented Programming (A+)
Top 3% of graduating class (2021) • Top student for 6 semesters, earning special privileges (2020)

MAJOR PROJECT

BudgetApp / [Budgetapp.it.com](#) / [GitHub](#)   2025

React • Node.js • Express • PostgreSQL • AWS (EC2, RDS, S3, CloudFront) • Passport.js • OAuth2

- **Developed and deployed a full-stack budgeting web application,** enabling users to track income and expenses across unlimited bank accounts, with full CRUD functionality and interactive data visualization. Achieved complete feature coverage of commercial budgeting tools.
- **Separated frontend and backend** by hosting the React application on AWS S3 and CloudFront, improving site performance (Time-to-Interactive reduced by **60%**) and decreasing backend server load by **45%**.
- **Implemented secure user authentication** using Google OAuth 2.0 and Passport.js, with encrypted session management and CORS policy enforcement across domains.
- **Built a responsive financial dashboard** featuring monthly comparisons, category-based breakdowns (via pie charts), and recent transaction logs, with backend API response times under **150ms**.
- **Designed and normalized a relational database schema** in PostgreSQL hosted on AWS RDS, ensuring referential integrity, optimized indexed queries, and support for **thousands** of user transactions.
- **Deployed a scalable Node.js + Express API server** on AWS EC2, handling 18 distinct endpoints with structured logging, secure environment variable management, and over 99.9% uptime throughout launch.
- **Configured HTTPS and domain routing** using AWS Certificate Manager and NGINX, improving trust and reducing user drop-off after login page enhancements.
- **Ensured cross-browser compatibility and mobile responsiveness**, delivering a consistent experience across devices using responsive design best practices.

RELEVANT WORK EXPERIENCE

Web Developer and XAI Researcher / *[Collaborative Systems Lab](#)* / *Guelph ON*   *Sep 2022 - Dec 2024*

- Built a **React** tool with live subtitle controls, boosting engagement by **45%** in a study with 18 users**.**
- Integrated **YouTube API** and **Node.js backend** to support 3 experimental conditions, enabling statistically significant results in comprehension scores **(p < .01).**
- Troubleshot asynchronous processing and API integration issues across a multi-component architecture, improving system stability during user testing.
- Contributed to **accessible technology** design by enabling subtitle control features and comprehension tracking for diverse user groups.

Full-Stack Web Developer/ *Segal Pardaz Sina*   *Jan 2019 – Sep 2020*

- **Designed and implemented** an enterprise-grade financial tracking web app using React.js, Node.js, and TypeScript, supporting over **1,000** monthly active users.
- **Demonstrated** a strong passion for learning by continuously improving my React and Node.js skills, resulting in a responsive, mobile-compatible UI with real-time updates—and a **45% increase in user engagement** for the tool I built.
- Collaborated on backend database architecture and APIs, improving data retrieval speed by **~40%** and supporting **up to 10,000 transactions/day.**

TRAINING & CERTIFICATES

AWS Cloud Practitioner (expected: 2025), Node.js Testing (2025), Full-Stack Dev Bootcamp (2025), Java SE (2020), Network+ (2018)