

Alexander Chudinov alexander.chudinov@icloud.com +1 (416) 854-2203

Pursuing Bachelor's Degree of Science in Computer Science from the University of British Columbia (2020 - 2025)

<https://alexanderchudinov.com> www.github.com/alexander-chudinov www.linkedin.com/in/alexander-i-chudinov

Fluent in English, French and Russian

Work Experience

Software Engineer, BIMStudio Inc, 06/2020 to 09/2021, Toronto

- Wrote a **full stack ES6+ JavaScript web application** from scratch.
- Planned the architecture for a variation of common web application stacks based on client requirements:
- **NodeJS** backend environment with **Express** for HTTP request routing and **Redis** for **server-side caching**.
- Configured backend to return JSON responses
- Set up **PM2 Process Manager** to run Node in the background and an **Apache HTTP Server** to reliably route requests to the backend **REST API**. Also set up **SSH** access for other engineers using **SSH Certificates**.
- Installed and configured **React**, **Redux** and **MaterialUI** for the front-end web interface.
- Managed **DNS records** and deployed application on a **DigitalOcean Droplet** running **Ubuntu Linux** with a custom **SSL certificate** from **Certbot**. Also configured **ufw (the Uncomplicated Firewall)**.
- Wrote Express **middleware** for the **Node.js** environment to enforce a user whitelist by interrupting requests, thereby protecting confidential client data from exposure to malicious actors.
- Deployed a **webhook** endpoint for automatic repo synchronization with **GitHub**.
- Wrote and tested numerous new **API endpoints** to connect frontend and backend applications with the following information: model textures, **BIM data**, user information, **BIM360** issues, and more.
- Created and refactored over a dozen frontend components using both **React Hooks** and Class components.
- Led weekly development sprints by **organizing design meetings and code reviews**.
- Set up an **AGILE** ticketing system for the other developers and **converted feature requests into tickets**.
- Ensured that **UI** was consistent across the application by creating a custom **Material UI theme**.
- Embedded **SVG** icons where applicable for a scalable UI.
- Made multiple helper functions for our web-based viewer using **Autodesk Forge** and **Three.js**

Assistant Computer Programmer, WZMH Architects, 07/2019 to 08/2019, Toronto

- Worked as part of the **Research & Development team** to develop side projects for the company.
- Created an **augmented reality iOS app** in **Swift** for architectural model viewing.
- Used **ARKit plane anchors** and **multi-finger gesture controls** to create intuitive **AR experiences** for users.
- Wrote an **app extension** in **Swift** which enabled users to open documents using the mobile app.
- Created an architectural model conversion server that converted user files using **Bash** scripts to ensure that models were viewable in **ARKit**. RVT to IFC, IFC to DAE, DAE to SCN.

Technical Experience

Software Lead, UBC Unmanned Aircraft Systems, 06/2021 to Present, Vancouver

- Developing competition software alongside a dozen other engineers.
- Worked on: Network Interface Manager, Motor Control Library, Tracking Antenna, ML Test Rig
- Preparing system for performance in two competitions: USC (Canada-wide), AUVSI (International)

24+ Hackathons, 11/2017 to Present, Canada & US

- Gained experience in numerous technologies and design systems.
- Became proficient in milestone estimation and development sprints.
- Learned how to present products concisely.

Familiar Libraries & Frameworks & Databases & Computer Languages / Programming Languages

ARKit, Bash, Bootstrap, Bulma, C++, Docker, Express, Firebase, Fortmatic, HTML/CSS, JavaScript, Keras, Leaflet, MariaDB, MaterialUI, MetaMask, MySQL, Next.js, Node.js, NumPy, OpenCV, PHP, PIL, PostgreSQL, Pug (Jade), Python, React, React Native, Redis, Redux, Socket.IO, Swift, TensorFlow, Three.js, Typescript