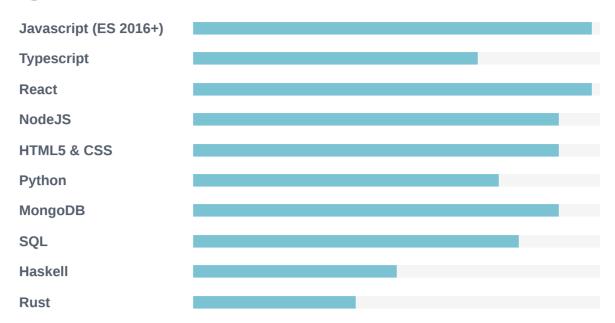## 👤 SUMMARY

Valentin is a senior **Full Stack Developer** and **Software Architect** with 9+ years of web development experience. Most recently he's worked for various Silicon Valley startups specializing in **JavaScript**, **React**, **NodeJS** and **Python**. His past experience also includes roles as a Java and C++ engineer at small and large companies including Amazon. He has degrees in Computer Science and Mathematics from the University of Washington.

🔧 SKILLS & PROFICIENCY

Skill	
Javascript (ES 2016+)	████████████
Typescript	████████
React	████████████
NodeJS	██████████
HTML5 & CSS	███████████
Python	████████
MongoDB	█████████
SQL	████████
Haskell	█████
Rust	████

💼 WORK EXPERIENCE

Full Stack Developer   2021-2022
Agnostiq, Toronto (via Toptal)

Workflow Orchestration for Heterogenous Computing (Covalent)

- Built the React front end for a cloud-computing dashboard with an interactive, real-time workflow visualization of tasks hierarchy. Used Socket.IO, Redux Toolkit, and React Flow for interactive workflow graph diagrams.
- Developed a Node.js back end for the dashboard and worked on the Python back-end, mainly consuming Python APIs in a microservices architecture.
- Worked with a team of physicists, mathematicians and computer scientists on defining requirements and designing architecture.

Architect | Tech Lead | Full-stack Developer   2018-2021
Fiddler, Palo Alto, CA

ML Model Monitoring and Model Performance Management

- Built the front end of a novel AI explainability platform for ML model management, handling performance, alerts, drift detection, and fairness.
- Developed the front-end from the POC version, to MVP, to production in React Redux, MongoDB, and SQL.
- Served as the technical lead for the front-end team and as a software architect as the company grew.
- Helped architect and develop the company's back-end API in Node.js and Python with TensorFlow.
- Learned a lot about machine learning and data science on the job, although those areas stopped being my primary responsibility once the company grew.

Full Stack Developer   2015-2016
Intro, San Francisco, CA

Professional social graph startup.

- Developed the web front-end for a professional networking service—search results for various categories, filtering, profile pages, and social network sign-ins.
- Collaborated on a Python back-end working on an API implementation, query-parsing, and OAuth.
- Worked on MongoDB data modeling and aggregation queries.

Software Developer | Architect   2009-2013
MIRACL, Sofia / London

Authentication solutions and elliptic curve cryptography startup.

- Collaborated on the design and development of M-PIN–a multi-factor personal identification and management system.
- Designed and developed PrivateSky–a secure end-to-end encrypted messaging service. Payloads are encrypted and deciphered only on the client (browser) and username/password authentication is replaced by a M-PIN-based SSO server.
- Implemented various clients and SSO servers using JavaScript, MIRACL SDK (elliptic-curve cryptography), HTML5 web workers, Node.js, and MongoDB.

Java Developer   2006-2009
Medio Systems, Seattle, WA

- Worked on the development of a scalable log-aggregation and reporting service using Java, MapReduce, and Oracle.
- Worked on a local search prototype for mobile: worked on local business source aggregation, results ranking, and local query parsing using Java.
- Contributed to the development of a universal search aggregator: worked on the results ranking system and search extensions using Java, RESTful, and SOAP-based web services.

Software Engineer   2002-2005
Amazon, Seattle, WA

C++ and Java backend engineer at the availability and product ontology teams.

- Worked on an experimental graph-based product ontology and a metadata processing system in Java.
- Worked as part of a team that was responsible for the design and development of very high-availability and high-throughput services for product price and availability data.
- Worked on problems of scalability, redundancy, and data propagation. Developed multi-threaded servers (C++, TCP/IP, Linux) and various caching and data partitioning systems. Implemented incremental data update solutions (C++, PL/SQL).
- Supported and evolved critical high performance routing middleware servers developed in C++.
- Handled pager duty for engineering support of business-critical services.

Developer Intern   summer 2001
Microsoft, Redmond, WA

Internship with the .NET team.

- Completed two projects involving the design and development of extensions for Visual Studio.
- Developed IDE extensions in C# and Visual Basic to deal with the automatic conversion of legacy code.
- Took courses and learned engineering processes as part of the .NET team.

📋 PROJECTS

Pantry - A recipe, inventory, product and sales management system for small food preparation businesses.

Cella Game of Life Similation - Cella is an engine for exploring Conway's Game of Life and other cellular automata written in JavaScript using HTML5 canvas.

📄 PUBLICATIONS

- Alias Annotations for Program Understanding
  Craig Chambers, Jonathan Aldrich, Valentin Kostadinov
  Presented at OOPSLA 2002

🎓 EDUCATION

BSc in Computer Science   1998 - 2002
University of Washington, Seattle

- Research Assistant - programming languages and ownership types
- Teaching Assistant - C++ and Java courses
- Minors in Mathematics and Philosophy

Valentin Kostadinov
Full Stack Developer

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LANGUAGES

English (Professional)
Bulgarian (Native)

INTERESTS

Pure functional languages
Home schooling