

Ivan A. Uemlianin, PhD

curriculum vitae

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Summary

- 10+ years software development experience, mostly in Python and Erlang.
- Academic background, professional experience, & long-term interest in linguistics, AI, and statistics.
- Familiar with the challenges of microservices architectures, and high-throughput data stream processing.
- Thrives in cross-functional teams; cares about team dynamics and how teams grow and develop.

Professional Experience

Current position

2023- | Acting CTO, KLEA360
KLEA360 is a subsidiary of [KLEA News Management](#), a news curation company based in South Africa.
My role is very broad — from hands-on coding and cloud architecture, through dev team leadership, to helping make decisions on business strategy.
Python/Django, PostgreSQL, Redis, Elm, Docker, AWS, Terraform, 3rd-party APIs.

Recent positions

2022-2023 | Erlang Elixir Lead Developer, [Alertive](#)
Alertive's eponymous product is a secure messaging platform for the healthcare industry. The typical customer is an NHS Primary Care Trust.
As Team Lead I triaged feature requests, introduced best practices, and drove architectural innovation; as Lead Developer I implemented requested features & bugfixes, improved test coverage, and added a working CI/CD pipeline.

	Erlang/Elixir, Python, SQL, GraphQL, AWS (Cognito, Lambda, AppSync, CloudWatch), CI/CD with BitBucket Pipelines, deployment with Terraform & Ansible.
2020-2022	<p>Senior Engineer, Alert Logic</p> <p>Alert Logic provides an MDR platform. In 2021-22 they had 4000+ customers: mid-sized banks, hospitals & businesses.</p> <p>My work involved maintaining and improving a large-scale micro-services application. I was also technical owner of a customer-facing data product: representing the product across the company, gathering and implementing requirements, monitoring and innovating.</p> <p>Erlang, Python, Go, AWS (EC2, DyamoDB, Kinesis, Lambda, S3, CloudWatch, CloudFormation), monitoring with DataDog & Kibana, CI/CD with github Actions & Workflows.</p>
2018-2019	<p>Senior Erlang Developer, Arweave</p> <p>Arweave is an innovative blockchain protocol providing on-chain permanent file storage.</p> <p>My work involved analysis of the legacy codebase and protocol (game theory, “tokenomics”), leading to the improvements and innovations outlined in the yellow paper.</p> <p>Erlang, Python, Docker, DataDog & Kibana.</p>
2014-2018	<p>Chief Scientist, Dasudian / 大数点</p> <p>Dasudian’s main product was a Manufacturing Execution System (MES) which enabled customers to apply ML techniques (modules in Python and R) to their analytics and factory workflow, using a visual programming environment. Most of my work here was design and supervision/leadership, with some coding.</p> <p>Erlang, R, Python, C, RabbitMQ, Riak; Erlang-R bridge rErlang.</p>
2011-2014	<p>Software Developer, Beatbullying</p> <p>Tech lead on a team developing a therapeutically-oriented social networking platform. The platform was running at many schools in the UK and at one point in eight countries around Europe.</p> <p>Python/Django, Erlang, PostgreSQL, monitoring with Erlang observer; real-time natural language identification (see LIGA).</p>
2003-2020	<p>Self-employed software consultant, Llaisdy</p> <p>News management software & website backend (2016-2020, intermittent) — Python/Django, Elm, RabbitMQ, 3rd-party APIs</p> <p>Car hire website (2016-2020, intermittent) — Python/Django, SQL, linux; 3rd-party credit card payment APIs</p> <p>Corporate social networking in healthcare (2015-2016) — Python/Django</p> <p>Computing semantic similarity (2015) — Python, Java, WordNet; vectorised random walks</p> <p>SMPP gateway (2013-2014) — Erlang, RabbitMQ; runtime code generation</p> <p>The Big March (2010) — Python/Django, Google App Engine; BeatBullying’s campaign The Big March collects awards</p>

Previous employment

2004-2010	Research Officer, Language Technologies Unit, University of Wales Bangor
2002-2003	Project Lead, Speech Recognition, Jura Technology Ltd
2001-2002	Head of Topic Map Development, Jura Technology Ltd
1994-1999	Lecturer, School of Psychology, University of Wales Bangor
1989-1990	Research Associate, Centre for Speech Technology Research, University of Edinburgh

Some publications

2019	<i>Block Chain Based Intelligent Industrial Network</i> . Automation, Control and Intelligent Systems, 7, 1 (with Barco You, Matthias Hub).
2018	<i>Arweave: A Protocol for Economically Sustainable Information Permanence</i> . (with Sam Williams, Viktor Diordiiev, Lev Berman, India Raybould).
2017	“Big Data and Bigger Pies” Invited talk at OECD Initiative for Policy Dialogue on Global Value Chains, Production Transformation and Development, 9th Plenary meeting. Bangkok, Thailand, 2017/11/16. “The Internet of Value / 价值互联网” Invited talk at WTO Global Value Chain Innovation Development Summit. Shenzhen, China, 2017/10/13.
2009	<i>Developing speech recognition software for command-and-control applications</i> . Canolfan Bedwyr, University Bangor, final report for project <i>Basic Speech Recognition 2008-9</i> . Cited in eg Smart Army Helmet .
2005	“ SpeechCluster: A speech database builder’s multitool ” Paper given at Lesser Used Languages & Computer Linguistics, European Academy Bozen/Bolzano, Italy, October 2005.

Education

2005	Diploma in Statistics, Open University
1995	Ph.D. in Linguistics, University of Edinburgh
1989	M.A. Linguistics & Artificial Intelligence, 2:1, University of Edinburgh